

HUBER+SUHNER® DATA SHEET

Sencity Rail Antenna: 1399.17.0125

Rev.: H

SWA-0825/360/5/30/V

Description

Railway rooftop antenna for GSM 900, GSM 1800, GSM 1900, UMTS and WiFi 2.4 GHz Band communication. Rugged design, meets EN 50155 railway standard. Extremely low profile (40mm).



Product Configuration

Technical Data

Electrical Data

	Band 1	Band 2	Band 3	Band 4
Frequency (MHz)	806 - 870	870 - 960	1710 - 2170	2400 - 2500
VSWR	2	1.5	1.7	1.7
Gain (dBi)	5	5	6	7
3dB beamwidth (h) (°)	360	360	360	360

General Data

Nominal Impedance	50 Ω
DC grounded	Yes
Polarisation	vertical
Connector	N, jack (female), bottom
Composite Power max.	100 W
Ambient Temperature	50 °C

Indicated VSWR values are valid for a metallic ground plane of 0.2 x 0.2m or larger. The ground plane needs to be 0.5x0.5m for frequencies below 870MHz. Gain were measured with 1m diameter metallic ground plane (simulating a complete metallic roof).

Mechanical Data

Dimensions (mm)	40 x 100 x 145 (Height x Width x Depth)
Weight	0.488 kg
Designed acc. to UIC 533, DC-grounded antenna element (protection against lightning and short circuit with catenary lines (40 kA/0.1s). Low corrosion design acc. to MIL-F-14072(E).	

Environmental Data

Operation Temperature (°C)	-40 to 85
IP Rating	IP 69K
Storage Temperature (°C)	-40 to 85
Solar Radiation	DIN 75220
RoHS	compliant
Environmental tests according to EN 50155:2007	

Material Data

Radome Colour	RAL 7043 (dark grey)
Back Plate/Base Plate Material	Aluminium

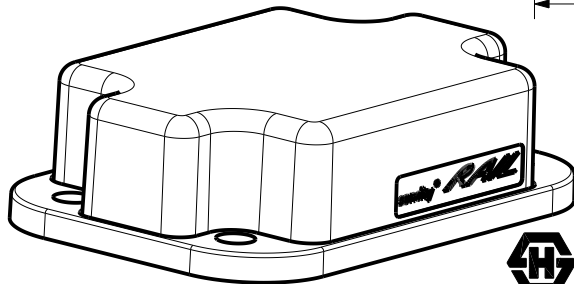
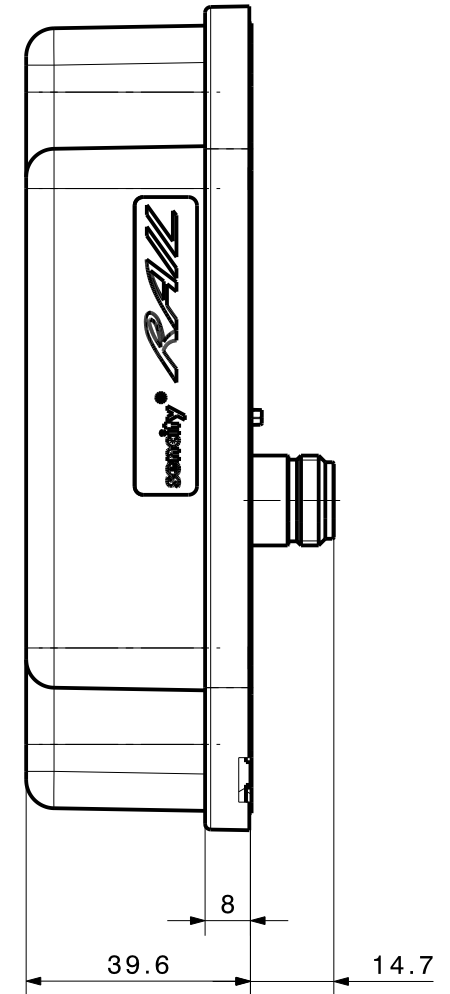
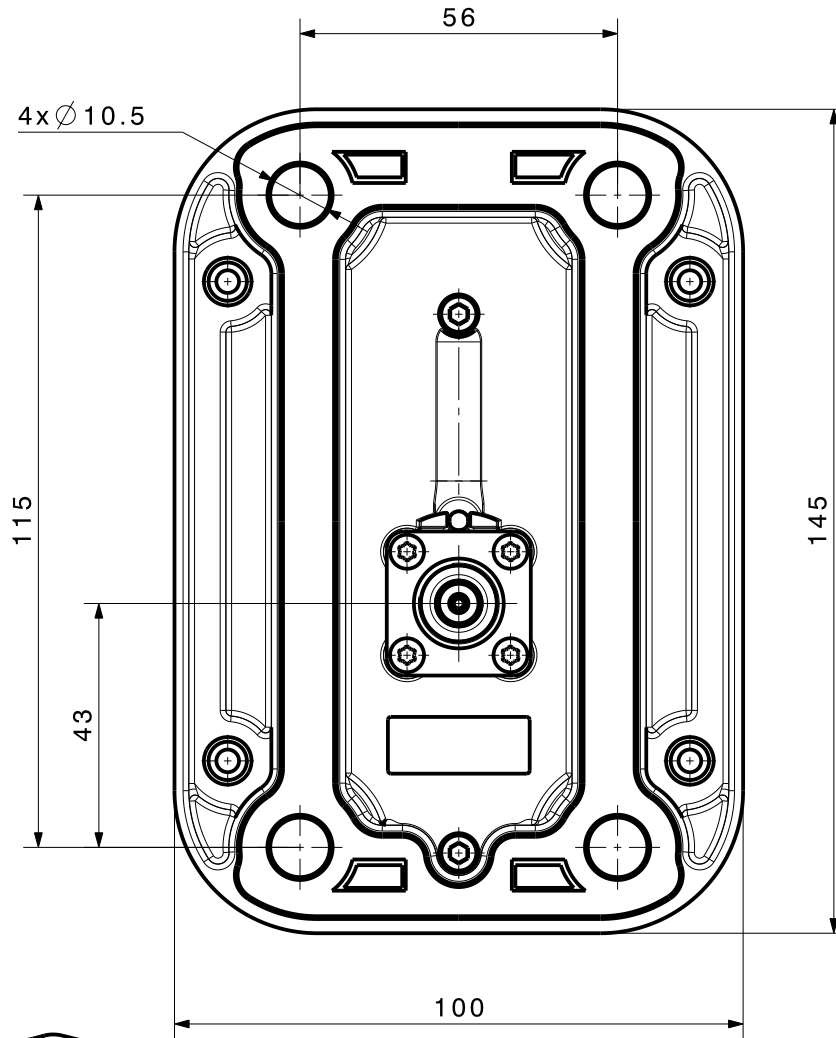
Related Documents


Mounting Instruction	DOC-0000311051
Painting Instruction	DOC-0000256180
Security Instruction	DOC-0000278984

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

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type / Typ: 1399.17.0125			
 dimensions in millimeter [mm]	part no. / Teile Nr.:	PRO-00144038	A sheet/Blatt XX / XX
description / Beschreibung		drawing-no. / Zeichnungsnr.	Release
SWA-0825/360/5/30/V		DOU-00144038	A
alternative ID:			

SENCITY[®] RAIL ANTENNA
FOR WIRELESS COMMUNICATION

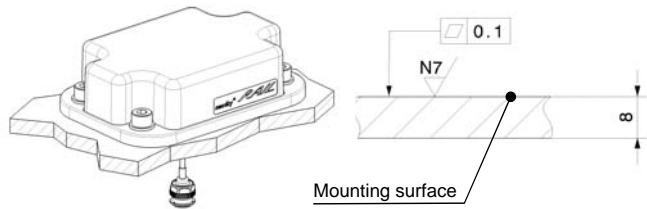
Mounting Instruction



Keep away from catenary and high voltage lines.
Be careful when working at height!
Always secure ladders!
Always tighten screws!

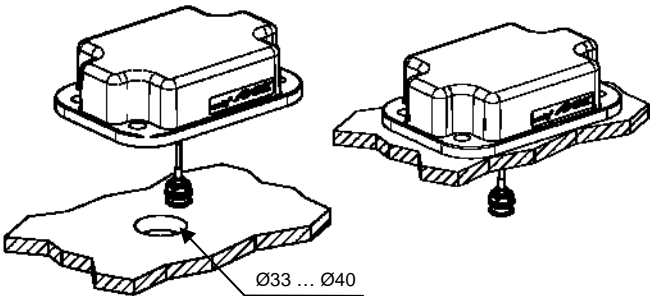
Dimensions in millimetre [mm]

Mounting surface



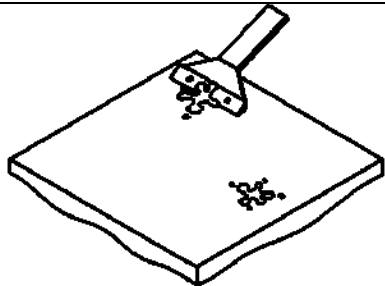
The area of the roof where the antenna is mounted has to be planar and stable.

Drilling of boreholes



1. Drilling of hole for connector
2. Use the antenna as hole-gauge
3. Drilling of the four mounting holes

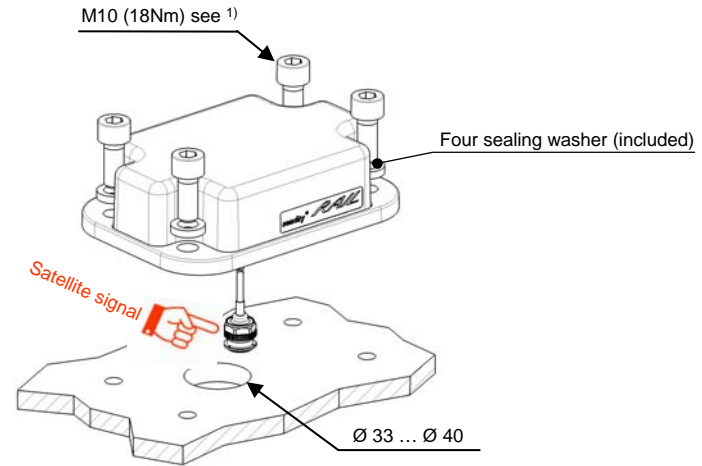
Preparation of roof



1. Clear the area, where the antenna is mounted from paint, corrosion or any anodized layer.

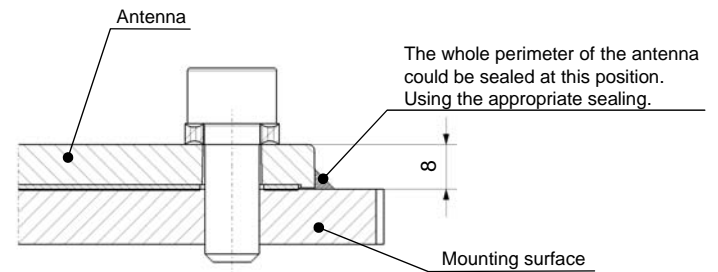
2. Clear this area from any dust, brake dust, cutting chip, oil or fat.

Top side mounting



¹⁾ For a minimum 8 mm thick steel plate.

Sealing



Protect the area inside the sealing from outdoor environment.

General remarks