

Vaisala Telemetry Antenna RM32



The Vaisala Telemetry Antenna RM32 is an omnidirectional UHF antenna used with the Vaisala DigiCORA® Sounding System to receive radiosonde signals in the 400 MHz meteorological band.

RM32 has two antennas which have been selected to optimize the performance in all elevation angles, both near the horizon and at the zenith. The sounding system selects the antenna with the best reception through a two position antenna switch. The operating telemetry range with the Vaisala RS92-SGP radiosonde is up to 200 km.

RM32 is well suited for fixed installations, but it can also be used in portable systems, when feasible. The mounting sleeve at the bottom of the tubular stand makes it easy to install the whole antenna assembly on top of an external mast. All the amplifier parts are housed in a watertight box at the base of the antenna mast. The amplifier runs on DC voltage, supplied by the UHF receiver.

Features and benefits

- Radiation pattern optimized for radiosonde reception
- Easy installation
- Long telemetry range - 200 km with RS92-SGP
- High elevation angle coverage - improved data availability

Technical Data

General

Frequency range	400 ... 406 MHz
Vertical antenna	
Directivity	5 dBi
Polarization	Vertical
Horizontal pattern	Omnidirectional
Helix antenna	
Gain	3dBic
Polarization	Right-hand circular
Horizontal pattern	Omnidirectional with hemispheric coverage

Telemetry range

With RS92-SGP radiosonde	200 km
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Amplifier

Gain	20 dB typical
Noise figure	<2 dB
Power input	+10 ... 12 VDC, typically 130 mA through RF cable
Output impedance	50 ohms, VSWR <1.5

Mechanics

Cable connector	Coaxial N-type male
Total height including mast	1760 mm
Inner diameter of mounting sleeve	61.5 mm
Depth of mounting sleeve	200 mm
Weight	11.4 kg with the feeder cable 6.3 kg without the cable
Standard cable length	33 m

Environmental conditions

Operating temperature range	-40 ... 55° C
Operating humidity range	0 ... 100 % RH
Operating precipitation	Unlimited
Maximum wind speed	65 m/s