

24/7 ASSET MONITORING SOLUTION ENERGY

AN-F1 ANTENNA DATASHEET

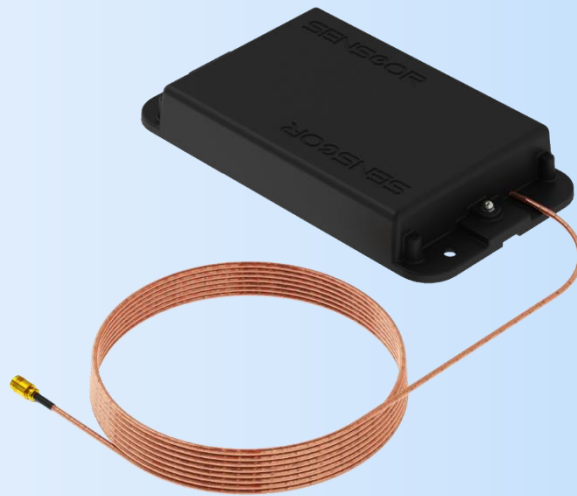
SENSeOR (head office)

Bâtiment Natura 2
1198, avenue du Docteur
Maurice Donat
06250 Mougins
France

ISO 9001:2015

BUREAU VERITAS
Certification

Contact address:

support.senseor@wika.com

Regional distributors

Visit www.senseor.com for
the latest distribution
locations.



APPLICATION

This datasheet describes the specifications of the *AN-F1 low profile antenna*. Connected to an HTR02 or AMS01 reader, this last generation of antenna is designed for the SENSEOR temperature and partial discharge monitoring system.

It is common to two use cases:

- The measurement of temperature SAW sensors
- The partial discharge detection

This antenna has been designed specifically to measure inside a switchgear cubicle and operation under high current and voltage.

This datasheet covers the following products:

- **AN-F1-295**: Antenna with 295 cm cable length.
- **AN-F1-455**: Antenna with 455 cm cable length.
- **AN-F1-500**: Antenna with 504 cm cable length.
- **AN-F1-620**: Antenna with 620 cm cable length.
- **AN-F1-800**: Antenna with 800 cm cable length.
- **AN-F1-1000**: Antenna with 1020 cm cable length.

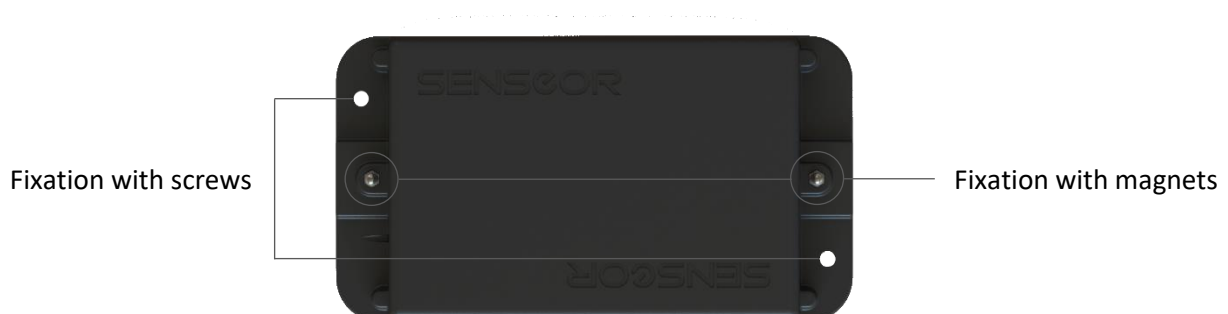
The standard coaxial cable length is 295 cm (reference *AN-F1-295*).

A 620 cm coaxial cable specific model (reference *AN-F1-620*) is also available when antennas are installed in the cable compartment of the cubicle. In case of multi-cubicle configurations, the same reader is used for the three adjacent cubicles.

For specific needs, other coaxial cable lengths are available: 455 cm, 504 cm, 800 cm and 1020 cm (references *AN-F1-455*, *AN-F1-500*, *AN-F1-800* and *AN-F1-1000*).

FIXATION MODES

The antenna can be mounted either with two screws (not included) on the surface of a metallic wall (left configuration), or with the two magnets integrated in the antenna basis (right configuration).

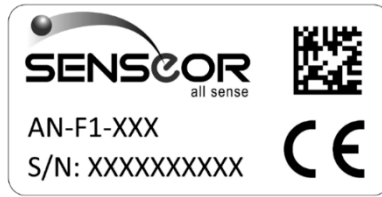


SPECIFICATIONS

AN-F1 ANTENNA

Product reference/model	AN-F1-295 AN-F1-455 AN-F1-500 AN-F1-620 AN-F1-800 AN-F1-1000
Temperature measurements frequency range	From 430 to 450 MHz
Partial discharge selectable RF channels (center frequency)	LFB (360 MHz), MFB (576 MHz), HFB (1 199 MHz)
Nominal impedance	50 Ohms
Radiation pattern	Omnidirectional
Polarization	Vertical
Antenna type	PIFA
Antenna gain	Not applicable near field inside switchgear
Recommended environments	Medium voltage panel Metallic ground plane No metallic parts or planes within 10 cm of the antenna
Operating temperature range	From -25 to +85°C
Ingress protection code	IP54
Dimensions	177 x 97 x 26 mm
Weight	215 g (without the cable)
Fixation modes	Two magnets inserted in the basis Two screws (M5 x 16 mm minimum – not included – stable position on long term only guaranteed with the screws)
Cable RF connector	Female SMB
Cable length	295 cm for AN-F1-295 455 cm for AN-F1-455 504 cm for AN-F1-500 620 cm for AN-F1-620 800 cm for AN-F1-800 1020 cm for AN-F1-1000
Certifications	RoHS 2011/65/EU and 2015/863/EU IEC 62271-1: Switchgear – lightning impulse voltage, power frequency voltage, partial discharge measurement tests IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-30 IEC 60068-2-6, IEC 60068-2-78 IEC 60255-21-1, IEC 60255-21-3 CEPRI-EETC06-2019-0023 / CCAM19LP1860T6

PRODUCT LABEL



PHYSICAL DIMENSIONS

Unit in mm.

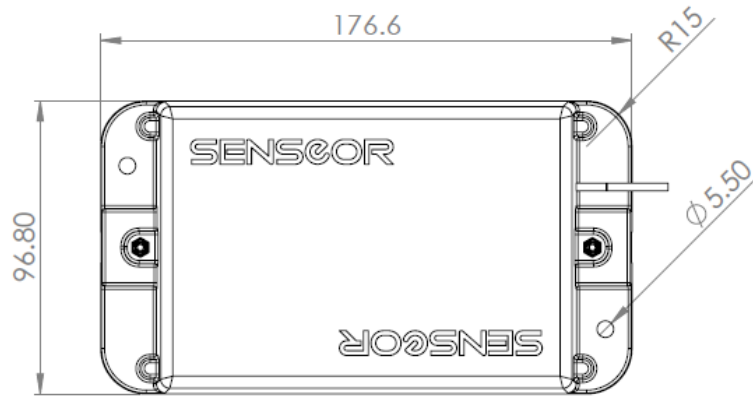


Figure 2: Top view of the antenna

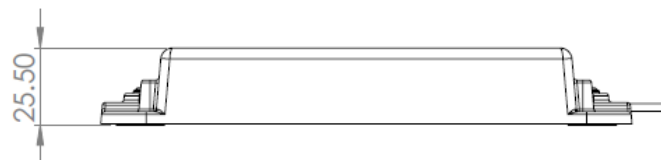


Figure 3: Side view of the antenna

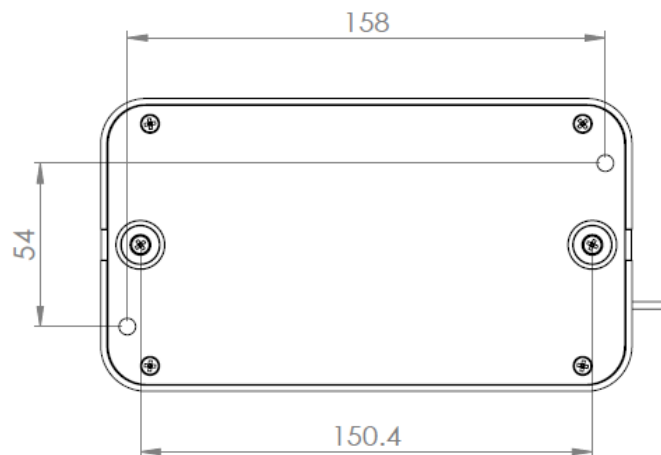


Figure 4: Bottom view of the antenna

*SENSeOR reserves the right to make technical changes or to modify the content of this document without prior notice.
SENSeOR is not responsible for errors or for possible lack of information in this document.*