

Radon, Temperature, Humidity and Pressure Sensor

The sensor is plug-and-play and can be installed in any room where there is a need to monitor radon, pressure, temperature, and humidity levels. The device features a sleek and discreet design that blends seamlessly into both office and home environments.

PERFORMANCE

The internal radio antenna is optimized for 868 MHz and is tuned for mounting on concrete, wood, or plaster surfaces.

MEASUREMENTS

Sensor parameters are transmitted every 60 seconds using the wireless M-Bus protocol, compliant with OMS. This makes the sensor ideal for integration into data collection systems.

Data from the device is protected using AES128 encryption in accordance with the OMS standard. All parameters are updated every 60 seconds, except for the radon level, which is updated every 10 minutes.

RADON SENSOR

The radon sensor is a high-performance sensor that measures the decay of radon particles. The radon value is updated as frequently as every 10 minutes, and this fast response time allows the device to be used even in HVAC systems.

TEMPERATURE SENSOR

The built-in temperature sensor is highly accurate, with a typical accuracy of ± 0.5 °C.

HUMIDITY SENSOR

The built-in humidity sensor is highly accurate across the entire temperature range, with a typical accuracy of $\pm 2\%$ RH.

SPECIFICATION

FIRMWARE

Mode:	T1
Transmission interval:	60 sec
Radon update interval:	10 min
Encryption:	AES128 encryption, OMS mode 5, Profile A

ALARMS

Radon:	Radon sensor malfunction
Calibration:	Calibration not performed

POWER SUPPLY

24 $\pm 20\%$ VAC or VDC (adapter not included)

RADIO

Output power:	16 dBm (25 mW)
ERP (typical):	10.7 dBm (11.75 mW)

GENERAL INFORMATION

Standards:	2014/53/EU (RED) EN 13757-3/4:2018, OMS 4.0.2
Color:	White
Material:	ABS/PC front, ABS back
Dimensions (W × H × D):	142 × 142 × 40 mm

OPERATING ENVIRONMENT

Temperature:	-30°C to +85°C
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Specifications in this document are subject to change without notice. v1.4

SENSORS

Type	Range	Typical accuracy	Sample interval	Operating condition
TEMPERATURE	-40°C to +85°C	±0.5°C at -20°C to +85°C	60 sec	Non condensing
HUMIDITY	0 - 100 %RH	±2 %RH at 20-80 %RH. ±3 %RH at 10-90 %RH ±3,5 %RH at 0-100 %RH	60 sec	Non condensing
Radon	Sensitivity: 0.3cpm/pCi/L (11,1 Bq/m ³) Range: 0.2 ~ 99.9pCi/L (7~3,700Bq/m ³)	< ±15% Min. uncertainty: 26 bq/m ³	10 minutes	Temperature: 10°C to +50°C Humidity: %RH < 80 and non condensing
Pressure	300 to 1200 hPa	± 2 hPA	60 sec	Temperature: -30° to +85°