Radon Scout Everywhere

Remote controlled radon sensor with switching output

Applications:

- professional radon monitoring in living rooms
- monitoring at working places

Features:

- highly sensitive radon sensor for short measuring intervals
- insensitive to humidity and temperature fluctuations, external radiation, vibrations and mechanical shocks
- switching output to control ventilation appliances
- secure remote control via LTE with software interfaces to 3rd party monitoring systems
- professional sensor technology with best references
- ex-works calibrated by SARAD's DAkkS-accredited radon calibration lab **according to DIN EN ISO/IEC 17025:2018**

Radon measurement		
Detector type	Lucas cell & SiPM	
Measuring range	1 Bq/m³ … 1 MBq/m³	
Accuracy	<= 6 %	
Sensitivity	3,7 cpm/(kBq/m³)	
Stat. error (1σ)	1 h @ 300 Bq/m³ 1 day @ 300 Bq/m³ 1 day @ 50 Bq/m³	12 % 3 % 6 %

Sensors (inside the housing):

Humidity	
Range	0 % rH … 100 % rH
Accuracy	< 4,5 % rH (3 % typ.) for 20 % rH … 80 % rH

Temperature	
Range	-40 °C … 120 °C
Accuracy	< 0,4 °C (0,3 °C typ.) for 5 °C … 60 °C

Pressure (optional)	
Range	760 mbar … 1200 mbar
Accuracy	< 0,5 % from measuring range

CO2 (optional)	
Principle of operation	non-dispersive infrared (NDIR)
Range	400 ppm … 5000 ppm (0 % to 0.5 %)
Accuracy	< 5 % ± 50 ppm
Response time	10 min
Important	automatic calibration with respect to outdoor CO2 level

Instrument	
Environmental conditions	-10 °C … 40 °C 0 % rH … 95 % rH, non-condensing 800 … 1100 hPa
Power supply	mains power adapter, 5 VDC / 2.5 A input voltage 100 - 240 VAC, 50/60 Hz consumption 2 W
ATEX category	no
Data storage	non-volatile memory with circular structure for 16 383 data records in any number of test series; saves all parameters including temperature and humidity each interval (from 1 to 255 minutes)
Interfaces	Ethernet RJ 45 5 VDC power input LTE modem stick intern or extern possible Switching output (potential free contacts, max 40 V, 250 mA, peak current 0.75 A)
Status indication	Red LED for power supply Green LED for operational state
Operation	automatic start after powering up
Radon Vision Software (incl.)	professional software for set-up, data download, interactive graphical display (zoom, pan, fit data-cursor, marker for tilt and start of a new measurement, error bars, smoothing) selective ASCII export (EXCEL format) selective graphical protocol print (space for individual header, user comments) calculation of average concentration / exposure automatic created file names and path structure switch over between US / SI-units (Bq/m³/pCi/L)
Standard software interfaces	MQTT messages providing the measuring values (at additional cost) REST API (only available when connected via Ethernet)
Dimensions	120 mm x 120 mm x 40 mm
Weight	250 g
Scope of delivery	monitor with integrated LTE modem stick and optional integrated SIM card mains power adapter
Optional accessory	USB extension cable with magnetic feet

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