

Radon Scout Professional

Radon monitor for long and short-term measurements and ventilation control



A new detector technology defines a new level: outstanding sensitivity at dosimeter size. The instrument will not be affected by any variations of temperature and humidity, external radiation, mechanical shocks and vibrations. Two AAA batteries are good for several month of autonomous operation. These features as well as the additionally integrated sensors for temperature, humidity, barometric pressure and CO₂ (both optional) making the Radon Scout

Professional the very first choice for both, short and long term Radon sampling. The fast and statistical accurate measurement allows – in combination with the optional switch output – the direct control of ventilation systems to maintain the statutory Radon threshold.

As an accessory, we offer a wireless switch which can be directly connected to the instrument. Thus, very low effort is required to control fans such as kitchen hoods, wall or window ventilators anywhere in your home.

All results are saved in the non-volatile memory and may be read through the USB interface. Only high-quality components are used for the Radon Scout Professional which is manufactured and calibrated according to DIN EN ISO/IEC 17025:2018 at our company's location in Dresden.

Technical data

Radon measurement

Principle of operation	Lucas cell & SiPM	
Range	1 Bq/m ³ ... 1,000,000Bq/m ³	
Accuracy	8% @ 1kBq/m ³ ;1h	
Sensitivity	2.5cpm/(kBq/m ³)	
Stat. Error (1σ)	1 hour @ 300Bq/m ³	15%
	1 day @ 300Bq/m ³	3%
	1 day @ 50Bq/m ³	8%

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

Radon Scout Professional – P only

Range	760mbar ... 1200mbar
Accuracy	< 0.5% FSO

CO2

Radon Scout Professional - CO2 only

Principle of operation	Non dispersive infrared (NDIR)
Range	400ppm ... 5000ppm (0% to 0.5%)
Accuracy	< 5% ± 50ppm
Response time	10min
Remark	CO2 sensor works only when instrument is powered through USB connector (computer, AC/DC adapter, power bank); measurement of other parameters is not affected Automatic calibration with respect to outdoor CO2 level

Instrument

Environmental conditions	0°C ... 40°C
	0%rH ... 95%rH no condensation
	800...1100hPa

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Power supply	2 x AAA battery or USB socket Battery operation approx. 2.5 ... 3 months Low battery indication by red LED (single flash each four seconds) Short time buffering of real time clock during battery change
Display	Alpha numeric LCD with bright backlight Units can be changed between SI and US style Languages available: DE, EN, ES, FR, IT, NO Radon average since start of a measurement series Radon concentration with percentage error Temperature, rel. humidity Bar. Pressure (Radon Scout Professional – P only) CO ₂ concentration (Radon Scout Professional – CO ₂ only) Battery voltage (Radon Scout Professional – P/CO ₂ only) Date and Time
Data storage	Non-volatile memory with circular structure for 16383 data records in any number of test series Saves all parameters including tilt detection each interval (settable from 1 to 255 minutes)
Interface	USB (mini USB socket)
Alert indication	Red blinking light (four consecutive flashes each four seconds) if Radon concentration exceeds 300Bq/m ³ Red backlight will be lighted if the CO ₂ concentration exceeds the threshold of 1000ppm (Radon Scout Home – CO ₂ only) Switch output for ventilation control (optional)
Operation	Slide switch to start/stop sampling Button to toggle display page and backlight
Radon Vision Software (included)	Set-up, data download (also via modem – analogue line, ISDN, GSM, TCP-IP) 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 and exposure Automatic created file names and path structure Switch over between US and SI-units (Bq/m ³ /pCi/L)

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Closer to your application

Dimensions	82mm x 96mm x 44mm
Weight	150g including batteries
Accessory	USB cable (incl. for all models) AC/DC adapter (incl. for models with pressure or CO2 sensor) Power bank (option for mains power independent operation with CO2 sensor), Transportation case Manual & Software (digital) Certificate of calibration according DIN EN ISO/IEC 17025:2018