

RPM 2300

Radon Decay Product Monitor



Applications:

- Correct dose determination of radon or thoron daughter product exposure
- Radiological assessment of interiors in clay houses

Features:

- Continuous spectrometric measurement of radon and thoron decay products
- Remote measuring head with minimized surface area to prevent the deposition of unattached decay products before they reach the measuring arrangement
- Tool-free and easy filter replacement
- Handy, portable design – measuring case with external mounting of the measuring head available
- Precisely controlled flow with integrated robust, durable, and quiet pump
- Battery operation for more than 30 hours

- Color touch screen with graphical display of spectra and measurement series
- Outstanding connectivity for system integration and connecting accessories
- Flexible, user-customizable alerting and warning system
- High data security thanks to proprietary controller architecture (no integrated PC solution with operating system)
- Factory calibration in accordance with DIN/ISO/IEC 17025 for decay products

Technical data:

Follow-up product measuring head	<i>Removable, attaches to accessory adapter</i>
Measurement principle	Separation of radon decay products on a filter and alpha spectroscopy
Dimensions	Width 43 mm, length 64 mm, height 38 mm
Detector	400 mm ² ion-implanted silicon detector
Filter	Membrane filter, 22 mm opening Monitoring for filter breakage, contamination No tools required for filter replacement
Nominal flow rate	1,5 l/min
Measuring range	1 ... 100 000 Bq/m ³ (EEC) free/bound
Sensitivity	approx. 1 800 cpm/(kBq/m ³) (EEC)
Response time	120 min
Measurement/Analysis	EEC, PAEC for radon and thoron decay products, respectively
Internal sensors	
Standard	Relative humidity 0 ... 100 %, accuracy ± 2 % Temperature -20 ... 40 °C, accuracy ± 0.5 °C Barometric pressure 800 ... 1 200 mbar, accuracy 0.5 % MW Flow rate 0 ... 4 l/min, accuracy ± 5 % Humidity/temperature sensors in the air circuit

Optional

Additional sensors with analog or pulse signals can be connected to the AUX1 and AUX2 sockets, e.g., local dose rate probe, weather station, and much more.

General information

Measurement

Simultaneous measurement with all detectors/sensors according to the selected measurement program

Measurement programs

Storage of up to 16 different measurement programs with up to 32 steps (defined or unlimited repetition)

Time interval 1 second to weeks

Data storage

Micro-SD, 32 GB

Operation/Display

4,7" Color Touch-Screen

Interfaces

2 independent digital communication channels

Channel 1: USB, RS 232, RS 485 B

Channel 2: RS 485 A with MODBUS RTU, WLAN (optional)

2 analog outputs, assignable to any measured value and measuring range

Power supply

12 V NiMH rechargeable battery (>30 hours continuous use)

Plug-in power supply 100-240 VAC ~50/60 Hz, 18 VDC / 1.8 A

Dimensions/Weight

235 mm x 140 mm x 255 mm / 6 kg

Software

dVISION

GPS

Highly sensitive GPS receiver usually provides position even indoors; coordinates are stored simultaneously with the measured values. Map view in dVISION, export of GIS-compatible KML files.

Environmental conditions

0 ... 40 °C

0 ... 95 % rH, non-condensing

800 ... 1 100 mbar

Scope of delivery

Charging power supply adapter

USB cable

Aerosol filters (10 pieces)

Hose 6.35 mm x 3.18 mm (1.5 m)

Optional accessories

Fuse (spare)

Transport case

Manual & software (electronic)

Factory calibration with DIN certificate for radon decay products

Measuring case with external mounting of the measuring head