

RTM 1688-2

Radon/Thoron Monitor



Applications:

- for measurements of the activity concentrations of airborne **radon (²²² Rn) and thoron (²²⁰ Rn)** in homes, workplaces, in the ground, etc.
- to determine the radon content in water samples and running water
- soil air measurements in construction projects and geophysical research
- localization of radon entry paths (sniffing) in buildings
- exhalation and emanation measurements
- as autonomous measuring stations for monitoring buildings or systems
- numerous applications in **geology, mineralogy, physics, chemistry, mining and civil engineering**

Features:

- absolutely universal radon/thoron monitor for the entire measurement range
- high sensitivity and simultaneous determination of the thoron concentration
- **alpha spectroscopy** measurement method, for low radon concentrations and fastest possible measurements
- soil gas and water measurements with built-in pump
- water ingress protection (optional)
- user-friendly one button operation
- remote data transmission possible
- fluctuations in humidity do not affect the readings (no desiccant needed!)
- storage of the complete alpha spectrum for each measuring point
- measurement of samples from small volumes (chamber volume 250 ml)
- DAkkS-accredited calibration according to DIN EN ISO/IEC 17025:2018

Closer to your application

Radon measurement

Detector type	4 x 200 mm ² Si-detector with HV-chambers
Internal volume (complete)	250 ml (volume of the air circuit excl. water ingress protection container)
Range	1 ... 10.000.000 Bq/m ³
Accuracy	<=5%
Sensitivity	3 / 6,5 counts/min @ 1000 Bq/m ³ for fast/slow mode
Response time	12 / 120 min for fast / slow mode
Mesurement/Analysis	alpha spectroscopy with separate calculation of the radon and thoron concentration storage of all individual spectra
Pump	high quality and powerful diaphragm pump flow rate 0,3 l/min continuous / interval operation

Control functions

Water ingress protection (opt.)	the pump is automatically switched off by the float switch as soon as water is sucked in. Removable stainless-steel container for emptying
Alert	internal buzzer for alert function and Radon-„Sniffing“
Internal sensors	rel. humidity, temperature, pressure, motion

General

Measuring interval	1...255 min, could be defined by user
Data storage	2047 data records (non-volatile memory) alpha spectra included
Operation	one button control (lock-function)
Display	back light display (3 x 16 characters)
Software	Radon Vision 7
Interfaces	USB, RS232 or RS485 with ModBus RTU (optional)
Power supply	18 V/DC 1 A, rechargeable battery > 150 h (continuous pump operation) > 10 days (interval pump operation)
ATEX Kategorie	no
Battery charging	8 h
Power supply adapter	100 – 240 V/AC. 50/60 Hz / 18 V/DC 1 A
Dimensions	232 mm x 182 mm x 135 mm (without handle)
Weight	3,5 kg

Environmental conditions

Temperature	0...40 °C
Rel. Humidity	0..95%, non-condensing
Bar. Pressure	800...1100 hPa