

# RPM 2200

## Radon/Thoron Gas & progeny product monitor



### Applications:

- to measure the radon / thoron equivalent equilibrium concentration (**EECRn & EECTh**) and/or the potential alpha energy concentration (**PAEC**)
- for environmental monitoring
- gamma spectrography (optional)
- protection against radioactivity
- building surveillance

### Features:

- determination of the radon / thoron equivalent equilibrium concentration (**EECRn & EECTh**)
- processor-controlled rotary vane pump for constant air flow
- 400mm<sup>2</sup> light protected silicon detector
- optimum spectroscopic resolution for separating the individual radon progenies
- touchscreen
- a full alpha spectrum for each measurement point
- remote data transmission and device control
- optional gamma probe (NaI)
- factory calibration

Closer to your application

<b>RD sampling head</b>	<i>Fixed at the front panel of the RPM 2200</i>
<b>Detector type</b>	400mm <sup>2</sup> ion-implanted silicon detector alpha 0-10 MeV
<b>Filter</b>	fabric reinforced membrane filter, d=25,4 mm, 1 µm pore size
<b>Pump</b>	rotary vane type 3 l/min, processor controlled
<b>Measurement range</b>	0 ... 1 MBq/m <sup>3</sup> (EEC)
<b>Sensitivity</b>	approx. 1000 cpm/(kBq/m <sup>3</sup> ) (EEC)
<b>Response time</b>	120 min
<b>Results / Analysis</b>	determination EEC, PAEC for both, radon und thoron storage of record related spectra and time distribution the thoron value is calculated by differentiation of the <sup>212</sup> Po over time, so that an excellent time resolution can be achieved

<b>Gamma probe (option)</b>	<i>Connected to the front panel of the RPM 2200 by cable</i>
<b>Detector</b>	Sodium-Iodid (NaI(Tl)) with integrated PMT and Bias Scintillation crystal 2" x 2"
<b>Energy range</b>	25 keV – 3 MeV
<b>Resolution</b>	<7.5% (Cs-137)
<b>Results / Analysis</b>	dose rate, net-activity of seven user defined nuclides storage of record related spectra and time distribution
<b>Probe dimensions</b>	diameter 60mm, length 260mm cable 5m (optional 10m)

<b>Additional sensors</b>	
<b>Standard</b>	flow 0 ... 4 l/min, accuracy ± 5%
<b>Meteorology (option)</b>	rel. humidity 0 ... 100%, uncertainty ± 2% temperature -20 ... 40°C, uncertainty ± 0.5°C bar. pressure 800 ... 1200mbar, uncertainty 0.5% value wind direction, wind speed
<b>Air analytics (option)</b>	CO, CO <sub>2</sub> , CH <sub>4</sub> , combustible gases, several ranges
<b>Water analytics (option)</b>	pH-value, redox potential, conductivity
<b>Process (option)</b>	pressure, differential pressure, flow, velocity etc.

Closer to your application

**General**

<b>Sampling</b>	simultaneous measurement with all detectors/sensors with respect to the selected sampling cycle
<b>Sampling cycles</b>	storage of up to 16 different sampling cycles with up to 32 steps (pre-defined or infinite repetition) interval 1 Second to several weeks
<b>Data storage</b>	SD Card, 2 GByte
<b>Operation / Display</b>	touchscreen, 6 x 9 cm
<b>Interfaces</b>	USB, RS232
<b>Power supply</b>	12 V NiMH-rec. battery (>100 h continuously) mains adapter 100-240V ~50/60Hz, 1,8A 12 V car battery adapter (optional)
<b>ATEX category</b>	No
<b>Dimensions / Weight</b>	235 mm x 140 mm x 255 mm / 6 kg
<b>Software</b>	dVISION: control and data transfer, visualization, data management dCONFIG: system configuration, creating / changing cycles (also via Net Monitors) dLIBRARY: Nuclid library for NaJ gamma probe (option)
<b>Extensions</b>	available at internal connectors: 8 analogous inputs, 3 counter inputs, 2 status inputs, 6 switch outputs, clock switch, PID regulator/analog.output
<b>GPS (option)</b>	GPS coordinates are recorded and stored together with the measurement results. GIS compatible *.kml files can be exported (can be opened by Google-Earth). antenna connected by cable
<b>Environmental conditions</b>	0...40 °C 0...95 % rH, non-condensing 800...1100 mbar

**Accessories**

<b>Scope of delivery</b>	charging adapter USB, RS-232 cables aerosol filters (1+10 pcs.) fuse (2 pcs) transport case manual & software (electronic version) factory calibration certificate
--------------------------	--