

Scientific Production Company "Doza"

Radon monitors

Radiation control equipment



RRA-01M-01: Radon monitor

- Measurement of radon concentration:
 - In the air
 - In the water using with sampling device POU-04
 - In the soil air using sampling device POU-04
- Measurement of radon flux density from the soil surface using sampling device POU-04.
- Built-in air sampler 1l/min
- Field operation

Physical characteristics

Detector:

- Silicon

Measurement range:

- Direct measurement:
Radon concentration in the air: $20 \div 20000 \text{ Bq/m}^3$
- Measurement with sampling:
Radon concentration in the air: $30 \div 30000 \text{ Bq/m}^3$
Radon concentration in the water: $6 \cdot 10^3 \div 8 \cdot 10^5 \text{ Bq/m}^3$
Radon concentration in the soil air: $10^3 \div 10^5 \text{ Bq/m}^3$
Radon flux density from the soil surface: $20 \div 1000 \text{ Bq/(m}^2 \cdot \text{s)}$

Measurement duration:

- $3 \div 20 \text{ min}$

Temperature range:

- $+5^\circ\text{C} \div 50^\circ\text{C}$



RRA-01M-01

Electrical characteristics

Power supply:

- 220 V, 50 Hz
- Rechargeable battery type GP160CK

Interface:

- RS 232
- Continuous operation from battery: not less 20 hours

Mechanical characteristics

Overall dimensions, weight:

- 290×155×200 mm, 3.5 kg

Reference standards:

- IEC 61577

RRA-01M-03: Radon and Toron monitor

Measurement of radon and toron concentration:

- In the air
- In the water using with sampling device POU-04
- In the soil air using sampling device POU-04
- Measurement of radon flux density from the soil surface using sampling device POU-04
- Measurement of environmental parameters: temperature, humidity and pressure
- Built-in air sampler 1l/min
- Field operation

Physical characteristics

Detector:

- Silicon

Measurement range:

- Direct measurement:
Radon (Rn-222): $20 \div 20000 \text{ Bq/m}^3$
Toron (Rn-220): $20 \div 20000 \text{ Bq/m}^3$
- Temperature: $5 \div 50^\circ\text{C}$
- Pressure: $700 \div 820 \text{ mmHg}$ ($930 \div 1090 \text{ mbar}$)
- Relative humidity: $30 \div 90\%$
- Measurement with sampling:
Radon concentration in the air: $30 \div 30000 \text{ Bq/m}^3$
Radon concentration in the water: $6 \cdot 10^3 \div 8 \cdot 10^5 \text{ Bq/m}^3$
Radon concentration in the soil air: $10^3 \div 10^5 \text{ Bq/m}^3$
Radon flux density from the soil surface: $20 \div 1000 \text{ Bq/(m}^2 \cdot \text{s)}$

Measurement duration:

- $3 \div 20 \text{ min}$

Temperature range:

- $+5^\circ\text{C} \div 50^\circ\text{C}$



RRA-01M-03

Electrical characteristics

Power supply:

- 220 V, 50 Hz
- Rechargeable battery type GP160CK

Interface:

- RS-232
- Continuous operation from battery: not less 20 hours

Mechanical characteristics

Overall dimensions, weight:

- 290×200×155 mm, 4 kg

Reference standards:

- IEC 61577

RAA-10: Radon/Toron Decay products monitor

- Measurement of radon/toron decay products concentration
- Definition of radon/toron equilibrium equivalent concentration
- Definition of equilibrium factor
- Definition of radon/toron decay products potential energy
- Automatic filter movement
- Programmable control of pumping, filter movement, measurement
- On-line alpha spectrometry

Physical characteristics

Detector:

- Silicon

Measurement range:

- Radon equilibrium equivalent concentration:
 $10 \div 20000 \text{ Bq/m}^3$
- Toron equilibrium equivalent concentration:
 $0,5 \div 10000 \text{ Bq/m}^3$

Measurement duration:

- $2 \div 5 \text{ min}$

Temperature range:

- $+5 \div 35 \text{ }^\circ\text{C}$



RAA-10

Electrical characteristics

Power supply:

- 220V, 50 Hz
- Rechargeable battery

Interface:

- RS-232

Mechanical characteristics

Overall dimensions, weight:

- $290 \times 110 \times 200 \text{ mm}$, 3,5 kg

Reference standards:

- IEC 61577

POU-04: Radon sampling kit

- Air sampling for radon measurement at low temperature, high humidity
- Soil air sampling for radon flux density measurement
- Water sampling for radon measurement

Physical characteristics

Temperature range:

- +5°C ÷ 40°C

Electrical characteristics

Power supply:

- 220 V, 50 Hz
- Rechargeable battery type GP160CK

Mechanical characteristics

Relative humidity:

- Up to 100% at 25°C

Overall dimensions, weight (in bag):

- 180×230×340 mm, 2.5 kg



POU-04

RGA-04: Radon monitor

- Continuous automatic Radon monitoring
- Three visual alarm signals of the excess of preset thresholds
- Measurement of mean annual radon concentration in the air
- Measurement results averaging within any period of measurements
- Automated estimation of Equivalent Equilibrium Volume Activity (EEVA)
- Of the Radon Decay Products with all the results stored in the memory

Physical characteristics

Detector:

- Silicon

Measurement range:

- 2 ÷ 65000 Bq/m³

Memory capacity:

- up to 1600 measurement results

Measurement duration:

- 1 min ÷ 200 days

Temperature range:

- +5°C ÷ 50°C



RGA-04

Electrical characteristics

Power supply:

- 220 V, 50 Hz
- Rechargeable battery

Interface:

- RS-232
- Continuous operation from battery: not less 7 days

Mechanical characteristics

Overall dimensions, weight:

- 160×180×80 mm, 1,0 kg

Reference standards:

- IEC 61577