



RDS-200

Universal Survey Meter

- dose rate survey
- dose measurements
- contamination monitoring (with external probes)
- area monitoring

- can form a monitoring network with AAM software
- active data transfer with telephone modem support
- programmable reading of dose rate averages
- interfaces for data transfer and external probes

The RDS-200 utilizes field-proven measurement electronics and also the TIM (Time Interval Method) measuring principle, known from RADOS AAM environmental monitoring system.

The RDS-200 Meter is an excellent multi-purpose radiation meter for a wide range of applications. Especially it was designed for situations where accurate measurements at low dose rate levels are of importance.

Physical characteristics

- radiation detected:
 - gamma and X-rays, 50 keV...3MeV. Beta radiation with an external probe
- detectors:
 - two energy-compensated GM tubes. Energy response according to the ambient dose equivalent
- dose rate measurement range:
 - 0.01 μ Sv/h...10 Sv/h or 1 μ rem/h...1000 rem/h
- dose measurement range:
 - 0.01 μ Sv...10 Sv or 1 μ rem...1000 rem
- resolution:
 - three significant digits or 0.01 μ Sv/h on dose rate and 0.01 μ Sv on dose. Alternatively three significant digits or 1 μ rem/h on dose rate and 1 μ rem on dose
- calibration accuracy:
 - \pm 5%, Cs 137 reading along the calibration direction and in the calibration field, temperature +20 °C (68°F)
- dose rate linearity:
 - \pm 15% \pm least significant number, in the range of 0.05 μ Sv/h...10 Sv/h or 5 μ rem/h...1000rem/h
- response dependence on radiation direction:
 - \pm 25%, within \pm 45 degrees from the calibration direction, test energy 65 keV
 - within the range of 0.05 μ Sv/h...10 mSv/h or 5 μ rem/h...1 rem/h
 - \pm 35%, within \pm 45 degrees from the calibration direction, test energy 83 keV
 - within the range of 10 mSv/h...10 Sv/h or 1 rem/h...1000rem/h
- energy range:
 - 50 keV...3 MeV, within the range of 0.05 μ Sv/h...10 mSv/h or 5 μ rem/h...1 rem/h
 - 80 keV...3 MeV, within the range of 10 mSv/h...10 Sv/h or 1 rem/h...1000 rem/h
 - note that at energy levels between 50...80 keV overflow messages are given if measurement range limit 10 mSv/h or 1 rem/h are exceeded
- response dependence on radiation energy:
 - -20%...+30%, within the range of 0.05 μ Sv/h...10mSv/h or 5 μ rem/h...1 rem/h
 - \pm 15%, within the range of 10mSv/h...10Sv/h or 1rem/h...1000rem/h

Electrical characteristics

- data Storage: the data logging interval of the instrument can be set from 1 to 99 minutes and it will memorize the 864 last measurement results in its internal memory
- power supply: 3 alkaline batteries (IEC LR6 / AA), +12 V DC external battery adapter (optional) or AC adapter (optional)
- battery life: 200 h in background field (+ 25°C- 77°F)
- battery alarm: 15 h before battery power-out

Mechanical characteristics

- casing: impact resistant, aluminium profile body with ABS plastic end caps, enclosure class IP67 (IEC 529), shielded against RF interference and NEMP.
- dimensions: 92 x 199 x 44 mm (3.62 x 7.83 x 1.73 in)
- weight:
 - 610 g without batteries (1.34 lb)
 - 700 g with batteries (1.54 lb)

Environmental characteristics

- temperature range:
 - -30°C...+55°C (-22°F to 131°F), operating
 - -40°C...+55°C (-40°F to 131°F), operating (restricted display operation)
 - -40°C...+70°C (-40°F to 158°F), storage

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As standards, specifications and design change from time to time, please ask for confirmation of the information given in this publication.