RDS-200

Universal Survey Meter

FEATURES

- dose rate survey measurements
- 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
- data logging and historgam downloading to PC
- time based or manually triggered data logging

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The RDS-200 Meter is an excellent, portable multipurpose radiation meter for a wide range of applications. It is espe cially designed for situations where accurate measurements at low dose rate levels are of importance. It is suited for a wide range of applications in military, civil defense, industrial and laboratory use etc. due to its versatile functions and durability.

The meter has an interface for the external gamma probes GMP-12H/12L or beta/contamination measurement probe GMP-11/15. A connector for the attachment of the meter to a PC is located at the bottom part of the meter and equipped with protective cover.

The RDS-200 utilizes field-proven measurement electronics and can also be used as a local display unit with the RADOS AAM-90 Area Monitoring System.

TECHNICAL SPECIFICATIONS:

Radiological Characteristics	
	• radiation detected: gamma and X-rays, 50 keV...1.3MeV. Beta radiation with an external probe • detectors: two energy-compensated GM tubes. energy response according to ambient dose equivalent • dose rate measurement range: 0.01 µSv/h...10 Sv/h or 1 µrem/h...1000 rem/h • dose measurement range: 0.01 µSv...10 Sv or 1 µrem...1000 rem • resolution: three significant digits or 0.01 µSv/h on dose rate and 0.01 µSv on dose (or 1 µrem/h on dose rate and 1 µrem on dose) • calibration accuracy: ± 5%, ^{137}Cs , calibration direction and in the calibration field, temperature +20 °C (68°F) • dose rate linearity: ± 15% ± least significant number (0.05 µSv/h...10 Sv/h or 5 µrem/h to 1000rem/h) • *variation of the response due to photon radiation energy (R_E) and angle (R_A) of incidence within ± 45° from calibration direction: - 0.05 µSv/h...10 Sv/h (5 µrem/h...1 rem/h): 80% < R_E < +130%(50...1300 keV); 75% < R_A < +125% (65 keV) - 10 mSv/h...10 Sv/h (1...1000 rem/h): 85% < R_E < +115% (80...1300 keV); 65% < R_A < +135% (83 keV) *Note that at energy levels between 50...80 keV overflow alarm is given if dose rate 10 mSv/h or 1 rem/h is exceeded
Functional Characteristics	
	• data storage: the data logging interval of the instrument can be set from 10 s to 99 minutes or data can be manually triggered and it will memorize the 864 last measurement results in its internal memory • diagnostics of faulty detector • Sv, rem (display "R") or Gy units configurable on display • configurable chirp function • adjustable alarm for dose and dose rate limit • overflow alarm for dose rate
Electrical Characteristics	
	• 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	
	• case: impact resistant, aluminium profile body with ABS plastic end caps, enclosure class IP67 (IE-529) shielded against RF interference and NEMP. • customized LCD display with blue electroluminencse backlight • 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: • -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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