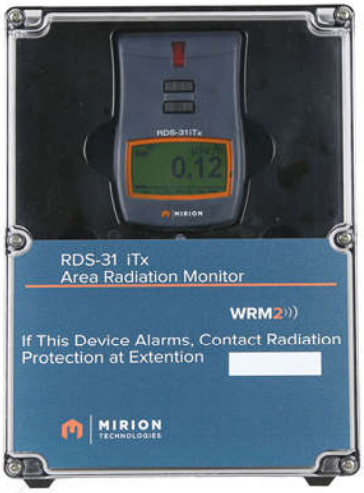
Model RDS-31 AM

Area Alarm Monitors



This Area Monitor was designed as an ALARA Tool for long term use in Locked High Rad Areas, to reduce entries and thus save time and dose. The concept for this product came from a need by a utility to monitor dose rates in steam affect Locked High Rad areas for a full 2 year fuel cycle utilizing battery power.
The new SD version of the RDS-31 is expected to be able to transmit data twice a minute for a period of two years in dose rate of up to 1R/hr on battery power provided (without alarms).

Features:

- Custom cut enclosure with injection molded insert, both pieces UL94-HB Flame Rated.
- Special high capacity air alkaline batteries
- Multiple mounting options
- Speaker holes and clear cover provide local alarm capabilities
- Built in db9 connection for optional High Rad tolerant external probe
- External Probe connects with standard AMP cable
- With a combination of the new diode detector and removal of rad sensitive components the SD version provides a much greater instrument life in higher dose rates (~20 kR of exposure)
- Special firmware for low current draw for extended run time (<4mA/hr)

- Radiation detected: Gamma and X-rays, 60 keV...6 MeV; Alpha and Beta radiation w/ external probes
- Ambient dose equivalent H*(10).
- Dose rate display range: 0.01 µSv/h... 1 Sv/h (1 µrem/h...100 rem/h).
- Dose measurement range: 0.01 µSv...200 Sv (1 µrem...20,000 rem).
- Resolution: three significant digits or 0.01 µSv/h on dose rate and 0.01 µSv on dose (1 µrem/h on dose rate and 1 µrem on dose).
- Calibration accuracy*: ± 5%, 137Cs, calibration direction and in the calibration field, temperature +20°C (68°F).
- Dose rate linearity: ± 15% ± least significant number 1 µSv/h... 1 Sv/h (0.1 mrem/h to 100 rem/h).
- Variation of the response due to photon radiation energy and angle of incidence: (R E,A) 71% < RE,A < 135% (60 keV...6 MeV), ± 60°

*Compared to Finnish National Laboratory STUK.

ELECTRICAL CHARACTERISTICS

- The area monitor used two 6 Volt, 45 Ah batteries along with the 2 AA batteries in the meter.

MECHANICAL CHARACTERISTICS

- Dimensions: 3.8" x 7.3" x 10.5" (without mount ing brackets)
- Weight with meter and batteries: 6.4 lbs

ENVIRONMENTAL CHARACTERISTICS

- Operating temperature -25°C to 60°C (-13°F to 131°F)
- Storage temperature -40°C to +70°C (-40°F to 158°F)
- Relative humidity: up to 85% at +35°C (95°F)
- Fulfills the RF-immunity levels of applicable standards

PROTECTION Begins with Detection

Arrow-Tech

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