

RDS-31 AM

Radiation Monitoring Alarm Box



OVERVIEW

The RDS-31 Alarm Monitor is intended for stationary or fixed installation in premises where people may be exposed to ionizing radiation.

The RDS-31 advanced survey meter is the main instrument, with one internal GM counter it covers dose rates from 0,01 uSv/h to 100 mSv/h. The system can be equipped with any GMP-12 series H* (10) probes to increase the upper dose rate level up to 10 Sv/h max.

The RDS-31 meter can be configured for dual display function, thus the results from both the internal and the external detector are then simultaneously shown in the graphic display.

The casing, Fibox type 17/16L3, includes one relay board with potential free changeover contacts for external alarm equipment or driving other external equipment, such as door control units etc.

External alarm equipment and indication/warning lights are usually mounted on top of the casing. The system is powered by a 230VAC/12 VDC power supply.

The internal batteries are used for back-up power supply of the RDS-31 meter in case of mains failures (the external alarm equipment are not backed up).

KEY FEATURES

Enclosure

- Modular and configurable design
 - Optional GMP-series dose rate & surface contamination probes
 - Area monitoring applications:
 - via LAN using WRM2 data transmission protocol
 - wireless WRM2 solution
 - Radioactive waste control
 - Control of equipment generating ionizing radiation or workplaces where radiation risk occurs
- Custom cut enclosure with injection molded insert, both pieces UL94-HB Flame Rated.

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SPECIFICATIONS

Radiological Characteristics

- Radiation detected: Gamma and X-rays, 48 keV - 3 MeV; Alpha and Beta radiation with external probes.
- Ambient dose equivalent H*(10).
- Dose rate display range: 1 μ R/h - 10 rem/h (0.01 μ Sv/h – 0.1 Sv/h)
- Dose measurement range: 1 μ Rem - 1,000 Rem (0.01 μ Sv - 10 Sv)
- Resolution: three significant digits or 1 μ R/h on dose rate and 1 μ Rem on dose (0.01 μ Sv/h on dose rate and 0.01 μ Sv on dose)

Mechanical Characteristics

- Casing EPDM and Polyurethane, IP 65 /IK 08/07
- Transparent cover for meter's display and alarm
- Size: 6.3x5.3x6.5 in (160x134x166 mm)
- Operating temperature: -40°F to 140°F (-25°C...+60°C)
- Storage temperature -40°F to 158°F (-40°C to +70°C)

Electrical Characteristics

- Mains supply; fixed/PSU 230 VAC/12 VDC (+ 5 VDC)

WRM communication over LAN, each monitor has TCP/IP address and sends dose rate & dose data at set intervals

The monitor can also be equipped for WRM (Wireless Radiation Monitoring) application by replacing the standard RDS-31 meter with either RDS-31iTx or RDS-31iTxSD model.

The applicable frequency range/max. power output are 900 Mhz/100 mW in US and 2,4 GHz/10 mW in Europe.

Measuring range:
RDS-31 iTx 0,01uSv/h to 100 mSv/h
RDS-31iTxSD 10 uSv/h to 10 Sv/h

Accessories

- Green permanent "Ready" light
- Red "Alarm" strobo light
- Alarm siren 105 dBA - fixed on top of casing or with wall mounting
- LAN adapter Lantronix USD 1100 installed in the casing
- Binder connector for external probes eg. for frisking purposes using external surface contamination probes

