RDS-30
Radiation Survey Meter

The RDS-30 is a Digital Handheld Dose Rate Meter designed for or a wide range of applications involving a possibility for abnormal radiation levels. Compact, lightweight, waterproof, its performance and its friendly user interface make the RDS-30 perfectly suited to radiation survey in field conditions, in nuclear industry and for protection against radiological hazards by personnel, who may be exposed to gamma and/or X-ray radiation in their work.

RDS-30 is microprocessor controlled. The user interface consists of one push button and an easy-to-use menu structure that displays information on the LCD of the meter. The six-digit display shows the dose rate and various messages. Different alarm situations are indicated by a combination of audio-visual effects on the LCD and a buzzer (dose rate, dose, low battery, defect, dose rate overflow).

RDS-30 provides user configurable (with SW) list of sequential alarm levels for dose rate. One dose rate at a time can be chosen from this. It is possible to store dose rate values into the histogram memory for later analysis of the instrument.

The use of a CSW software is required for downloading the data into a PC via IrDA port.

FEATURES

- measurement and displays in µSv/h or mrem/h
- dose measurement indication
- high battery life time (>1 year)
- compliant to IEC 60846
- dose rate follow-up by audible signal with frequency proportional to dose rate
- visual and audible alarm: user settable for dose and dose rate over the whole measurement range
- histogram capability of up to 480 dose rate values with user settable logging interval
- backlit display with six large digits
- display in either µSv/h or in mrem/h
- built-in self diagnostics
## TECHNICAL SPECIFICATIONS:

### Radiological characteristics
- Radiation detected: gamma and X-ray from 48 keV to 1.3 MeV
- Detector: energy compensated GM tube compliant to H*(10)
- Dose rate measurement range: from 0.01 µSv/h to 100 mSv/h or from 1 µrem/h to 10 rem/h
- Dose rate linearity: ±10% ±1 digit within the range of 0.1 µSv/h to 100 mSv/h or 10 µrem/h to 10 rem/h
- Calibration accuracy: ±5% of the reading in 137Cs exposure, at 3 mSv/h, +20°C (68°F)
- Energy response: ±30% over the range of 48 keV - 1.3 MeV
- Angular response: ±25% within ±45° from the calibration direction at 48 keV
- Dose measurement range: from 0.01 µSv to 1 Sv or from 1 µrem to 100 rem

### Functional characteristics
- Dose rate follow-up by audible signal with frequency proportional to dose rate
- Visual and audible alarm: user settable for dose and dose rate over the whole measurement range
- Dose measurement (µSv / mrem)
- Histogram capability of up to 480 dose rate values with user settable logging interval
- Backlit display with six large digits
- Display in either µSv/h or in mrem/h (configurable per request)
- Built-in self diagnostics for GM-tube operation, high voltage and battery capacity
- Built-in infra-red port (IrDA)

### Mechanical characteristics
- Case: rugged plastic, easily decontaminable
- Dimensions: 78 x 126 x 32 mm
- Weight:
  - 170 g without batteries
  - 220 g with batteries

### Environmental characteristics
- Temperature range:
  - −25 ... +55°C operational (-13... 131°F)
  - −40 ... +70°C storage (-40... 158°F)
- Protection level: IP67 (temporary immersion / floating device)

### Electrical characteristics
- Power supply: 2 alkaline batteries IEC LR6/AA size (recommended)
- Battery life time: at least 2000 hours at normal background with alkaline cells (more than 1 year under normal operation)
- Battery alarm: two-step alarm for low battery voltage
- Electromagnetic compatibility: CE compliant

### Accessories
- CSW software for parameter setting and histogram readings (can be downloaded free of charge at www.mirion.com)
- CSW-Configuration SW full version with calibration key
- Wrist strap
- Neck strap