



MIRION
TECHNOLOGIES

Health Physics for Healthcare

RDS-80™

Surface Contamination Meter



The RDS-80 Surface Contamination Meter is a versatile contamination detector designed for a wide range of applications, for nuclear medicine and radiopharmaceutical development.

This Digital, Hand Held Pulse Rate Meter is suitable for personnel who need to detect and locate contaminated surfaces/objects.

The functions comprise contamination measurements with alarm functions and automatic conversions to surface activity values. Surface contamination measurements can be stored as histogram events in the meter's internal memory.

FEATURES

- ✓ Wide measurement range:
 - Up to 100,000 cps or 1,000,000 Bq/cm² (RDS-80)
 - Up to 100,000 CPM or 1,000,000 DPM (RDS-80A)
- ✓ Standard surface contamination measurements in SI (cps & Bq/cm²) or USA (CPM & DPM)
- ✓ Contamination measurements with histogram function
- ✓ Visual and audible alarms
- ✓ Handy and easy-to-use design
- ✓ Complies with IEC 60325 standard



RADIOLOGICAL CHARACTERISTICS

- Radiation detected: alpha >2 MeV, betaEmax >100 keV, gamma and x-rays from 5 keV to 3 MeV
- Detector: end window GM tube, 1.5-2 mg/cm²
- MICA window active surface area 15.2 cm²
- Measurement range: surface contamination 1 to 100,000 cps or 0.01 to 1,000,000 Bq/cm²
- Alarm levels: freely adjustable alarm levels for contamination level
- Cps linearity: $\pm 15\% \pm 1$ digit over the range. The Bq/cm² or DPM display is calculated from cps of CPM values using isotope dependent coefficients

FUNCTIONAL CHARACTERISTICS

- Display in either SI (cps & Bq/cm²) or USA (CPM & DPM) units
- Surface activity (Bq/cm² or DPM) display configurable for different isotopes
- Cps rate follow-up by audible signal with frequency proportional to activity
- Visual and audible alarm: user settable for surface activity
- Histogram capability of up to 480 points with user settable logging interval
- Backlit display with six large digits
- Built-in self-diagnostics function
- Gamma background reduction for Bq/cm² measurements
- Built-in infra-red port (IrDA)

ELECTRICAL CHARACTERISTICS

- Power supply: 2 alkaline batteries IEC LR6/AA size (recommended)
- Battery life time: at least 2,000 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.

MECHANICAL CHARACTERISTICS

- Rugged plastic case
- GM tube \varnothing 4.4 cm (1.74")
- Dimensions: 78 x 126 x 57 mm
- Weight: 280 g without batteries, 330 g with batteries

ELECTRICAL CHARACTERISTICS

- Temperature range:
 - 25...+55 °C operational (-13... 131 °F)
 - 40...+70 °C storage (-40... 158 °F)

OPTIONAL ACCESSORIES

- RDS-CSW software for parameter setting and histogram readings (can be downloaded free of charge at www.mirion.com, requires an USB-IrDA adapter)
- CSW Configuration SW full version with calibration key
- Wrist strap
- Neck strap



Optional USB-IrDA adapter

Optional software (RDS-CSW) is required for downloading the data into a PC via IrDA port.

ORDERING INFORMATION

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|----------|------------------------------------|
| 1233-245 | RDS-80, Bq/cm ² and cps |
| 1233-254 | RDS-80A, DPM and CPM |

Available Through Mirion Medical Companies: Capintec & Sun Nuclear

Health Physics for Healthcare solutions enable radiation monitoring in healthcare applications — a critical aspect of safety and compliance for all facilities using radiation in patient diagnosis and care.



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