



# RDS-80<sup>TM</sup>

Surface Contamination Meter



## FEATURES

- Wide measurement range: up to 100 000 cps or 1 000 000 Bq/cm<sup>2</sup>
- Standard surface contamination measurements in cps or Bq/cm<sup>2</sup>
- Contamination measurements with histogram function
- Visual and audible alarms
- Handy and easy- to- use design
- Software for parameter setting, histogram readings and nuclide calibration complies with IEC 60325 standard

## DESCRIPTION

The RDS-80 Surface Contamination Meter is a versatile contamination detector which has been designed for a wide range of applications in different fields of radiation protection in nuclear industry, rescue and other operations, involving a possibility for abnormal contamination levels.

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

The functions comprise contamination measurements with alarm functions and automatic conversion to surface activity value and additionally surface contamination measurement with a possibility to store the histogram events into the meter's internal memory.

The use of configuration software (RDS-CSW ) is required for downloading the data into a PC via IrDA port.



### 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/cm<sup>2</sup>
- MICA window active surface area 15,2 cm<sup>2</sup>
- Measurement range: surface contamination 1 to 100 000 cps or 0.01 to 1 000 000 Bq/cm<sup>2</sup>
- Alarm levels: freely adjustable alarm levels for contamination level
- Cps linearity: ±15% ±1 digit over the range. The Bq/cm<sup>2</sup> display is calculated from cps values using isotope dependent coefficients

### FUNCTIONAL CHARACTERISTICS

- Display in either cps or Bq/cm<sup>2</sup>
- Surface activity (Bq/cm<sup>2</sup>) 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/cm<sup>2</sup> measurements
- Built-in infra-red port (IrDA)

### 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

### MECHANICAL CHARACTERISTICS

- Rugged plastic case
- GM tube Ø 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)

### ACCESSORIES

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



USB-IrDA adapter