

## Radiation. Safety.

# RAD-60/62

**Electronic Dosimeters** 









Nuclear Power

Homeland Industrial and Security Manufacturing & Defense

Industrial and Healthcare Manufacturing Labs and Education

## **OVERVIEW**

**RAD-60 Personal Alarm Dosimeter** is a precise radiation measuring instrument for reliable detection and registration of radiation in order to ensure the personal safety of the user. It is suitable for a broad range of everyday radiation monitoring purposes in stand alone conditions.

**RAD-62 System Dosimeter** is an integrated solid state dosimeter with a full range of functions for use in the automatic dose management systems. It forms a highly cost effective package with its outstanding performance and is handy and convenient to use even by people wearing protective clothing.

## **KEY FEATURES**

- enhanced EMI immunity
- ruggedized clip fixing
- improved wear-out and decontamination properties

MIRION

- increased buzzer volume
- compact and lightweight
- standard AAA alkaline battery for 1800 h of operation
- solid state detector
- digital display for integrated dose or alternatively ose rate
- user selectable alarm levels for both dose and dose rate

Health Physics

## PHYSICAL CHARACTERISTICS

- Radiation detected:
- gamma and X-rays
- Detectors:
  - energy compensated Si-Diode
- Measurement range: - dose: 1 µSv - 9.99 Sv or 0.1 mrem - 999 rem - dose rate: 5 µSv/h - 3 Sv/h or 0,5 mrem/h - 300 rem/h
- Calibration accuracy:
- better than ±5% (Cs-137, 662 keV at 2 mSv/h), Hp(10)
- Energy response: - Hp(10), 60 keV - 3 MeV, better than ±25%, up to 6 MeV, better than ±35%
- Dose rate linearity:
  - better than  $\pm 15\%$ , up to 3 Sv/h (300rem/h)
  - better than ±10% for 0.005 mSv/h 1 Sv/h
- (1mrem/h-100 rem/h
- Audible alarms:
  - eight separate alarms, sound level typically better than 85 dBA at 30 cm
  - integrated dose
  - dose rate
  - dose overflow
  - dose rate over flow at 3 Sv/h or 300 rem/h
  - low battery 1 and 2
  - defect
- Alarm thresholds\*:

#### RAD-60:

- seven preset values each for integrated dose and dose rate, manually selectable by push-button **RAD-62**:

- wo freely selectable values for integrated dose and one for dose rate

Push-button functions\*:

#### RAD-60:

- front panel push-button has the following selectable functions:

- toggle between dose and dose rate display
- switch ON/OFF
- chirp ON/OFF
- reset integrated dose
- change alarm thresholds
- activate battery test

#### RAD-62:

- toggle between dose and dose rate display
- display alarm level

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\*) Note RAD-60: the active alarm thresholds and configuration of push button functions of RAD-60 can be changed by using ADR-1 Reader Head in combination with Mirion PC Software.

## **MECHANICAL CHARACTERISTICS**

- Dimensions: 78 x 67 x 22 mm (3.1 x 2.6 x 0.8 in)
- Weight: 80 g (2.8 oz) including battery

### **ENVIRONMENTAL CHARACTERISTICS**

- Temperature range:
  - **RAD-60**:

-20 °C to +50 °C (-4 °F to 122 °F ) operational, humidity up to 90% RH, non condensed

RAD-62:

- from -20 °C to +50 °C (-4 °F to 122 °F ) operational
- from -20 °C to +70 °C (-4 °F to 158 °F) storage
- humidity up to 90 % RH, non-condensed

## **ELECTRICAL CHARACTERISTICS**

- Power supply: - one AAA alkaline cell, life typically 1800 h in background field (dose mode)
- Reader communication:
   by infrared through bottom part; by using ADR-1
   Reader Head in combination with Mirion PC software

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