

DoseRAE 2

Personal Electronic Dosimeter



DoseRAE 2 is a compact, direct-reading and alarming electronic personal radiation detector. It uses a diode and a scintillation crystal to detect X- and gamma radiation, and provides real-time monitoring of personal dose and dose rate. The real-time radiation dose rate monitoring allows immediate reaction in case of radiation occurrences and thus reduces the radiation exposure. By measuring dose equivalent and dose equivalent rate, this detector provides the functions of a dosimeter too. It also measures radiation exposure and exposure rate, which is appropriate for controlling the exposure of emergency responders to photon radiation.

KEY FEATURES

- Stand-alone electronic dosimeter with LCD display
- Multiple units with reader and software can be used as a dosimetry system
- Continuous digital dose rate readout in rem/h, Sv/h and R/h
- Continuously accumulated total dose readout in rem, Sv and R
- Prominent visible, audible, and vibration alarms
- Long calibration life
- Two operation keys, simple intuitive programming

APPLICATIONS

- Nuclear power plants
- Environmental survey
- Fire Departments
- Hazardous Material Response Teams
- Police
- EMS
- Military
- Hospitals

Dosimeter Meets Detector:

Contains two separate sensors, CsI/photodiode and PIN diode. The energy-compensated PIN diode provides high-dose-rate range coverage and accurate dose measurements, while the CsI (Cesium Iodide) scintillator provides fast response to low-level radiation.

Datalogging and Analysis:

Offers continuous datalogging with a large, 3,000-point capacity. With associated software, the datalog can be downloaded via USB to a computer. The software is used for data display, analysis and record management.

Alarm Types:

Integrated loud audible, bright LEDs, and vibration alarms.

Total Dose Data:

Accurately accumulates real-time dose data.

National Standard Compliance:

Designed in compliance with IEEE ANSI N42.20 standard, with performance tested at Oak Ridge National Laboratory

SPECIFICATIONS

Gamma Sensors	CsI (TI) + photodiode (low environment radiation) Energy-compensated PIN diode (level of radiation protection)
Dose Rate Range	0.01 μ Sv/h to 10 Sv/h (1 μ R/h to 1140 R/h)
Accuracy of Dose Rate	\pm 20% (from 10 μ Sv/h to 10 Sv/h or from 1.14 mR/h to 1140 R/h) \pm 30% (from 0.01 μ Sv/h to 10 μ Sv/h or 1 μ R/h to 1.14 mR/h)
Dose Range	0 μ Sv to 10 Sv (0 μ R to 1140 R)
Dose Accuracy	\pm 15%
Energy Range	20 keV to 6 MeV for X- and gamma radiations
Size	3.3" x 2.2" x 0.4" (85 x 55 x 9.6 mm) without clip
Weight	1.8 oz. (50g) with battery and clip
Battery	LIR2450 Rechargeable batteries
Operating Hours	Up to 200 hours after each charge (one week continuous use)
Datalog Size	More than 3000 data points
Datalog Interval	User programmable, from 30 to 3,600 seconds
Communication	USB interfaces with computer for datalog download
Alarms	<ul style="list-style-type: none"> • Loud audible buzzer (85+dB @ 30 cm/12") • Highly visible LED lights • Built-in vibration alarm
Alarm Settings	Dose alarm (adjustable from 1.0 μ Sv to 10 Sv or 114 μ R to 1140 R) Dose rate alarm (adjustable from 1.0 μ Sv/h to 10 Sv/h or 114 μ R/h to 1140 R/h)
Temperature	-20° C to 50° C (-4° F to 122° F)
Humidity	0% to 95% (non-condensing)
IP Rating	IP-54
Shock Resistance	Passes drop test from 1.5 m (59")

Specifications are subject to change



DOSERA E 2 COMES WITH:

- DoseRAE 2 electronic personal dosimeter with clip
- Charging and PC communication cradle
- USB communication cable
- Protective silicone boot
- CD with (1) ProRAE Dosimeter instrument configuration and data management software and (2) User's Guide
- Protective pouch with alligator clip
- Calibration and test certificate
- Warranty/registration card

