

DoseRAE Pro

Rugged Electronic Dosimeter for Personal Radiation Dosage Monitoring

DoseRAE Pro is a rugged, compact, direct-reading and alarming electronic personal radiation detector and dosimeter. It uses a diode and a scintillation crystal to detect X-ray and gamma radiation, and provides real-time monitoring of personal dose and dose-rate allowing immediate action to reduce personal radiation exposure. DoseRAE Pro includes a Stay-time countdown timer with warning alarm to allow the user to set a specific time limit when working in a radiation area, limiting the user's personal radiation exposure.

Key Features

- ▶ Rugged electronic dosimeter with high sensitivity CsI Scintillator sensor
- ▶ Multiple units with reader and software can be used as a dosimetry system
- ▶ Continuous LCD digital dose rate readout in Sv/h or R/h
- ▶ Continuously accumulated total dose readout in Sv or R
- ▶ Prominent visible, audible, and vibration alarms
- ▶ User configurable Stay-Time countdown timer and alarms to prevent excessive radiation exposure
- ▶ Fast near field communication wireless data transfer
- ▶ Long calibration life
- ▶ Simple two button operation and programming

Optional Equipment

- ▶ PRR-1 DoseRAE Pro Dosimeter Reader and software



Applications

- ▶ Nuclear power plants
- ▶ Environmental survey and clean-up
- ▶ Fire Departments
- ▶ Hazardous Material Response Teams
- ▶ Police
- ▶ EMS
- ▶ Military
- ▶ Industrial safety
- ▶ Waste management
- ▶ Hospitals and Medical Clinics

DoseRAE Pro Kit includes

- ▶ DoseRAE Pro electronic personal dosimeter with belt clip
- ▶ Alligator clip
- ▶ 1 AA battery
- ▶ User manual on CD
- ▶ Quick-start user guide
- ▶ Calibration and test certificate
- ▶ Warranty/registration card

DoseRAE Pro

Specifications

Sensor

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 9.99 Sv/h (1 μ R/h to 999 R/h)

Accuracy \pm 20% (10 μ Sv/h to 9.99 Sv/h, 1 mR/h to 999 R/h)
 \pm 30% (0.01 μ Sv/h to 10 μ Sv/h, 1 μ R/h to 1 mR/h)

Dose Range..... 0.01 μ Sv to 9.99 Sv (1 μ R to 999 R)

Dose Accuracy..... \pm 15%

Energy Range..... 50 keV to 6 MeV for X- and gamma radiations

Alarms

Alarm Alerts..... Loud audible buzzer (85+dB @ 30 cm/12")
Highly visible LED lights
Built-in vibration alarm
Each alarm individually enabled/disabled

Alarm Settings **Dose:** continuously adjustable: 1 μ Sv to 9.99 Sv (100 μ R to 999 R)
Dose Rate: continuously adjustable: 1 μ Sv/h to 9.99 Sv/h (100 μ R/h to 999 R/h)
Stay Time: 1 to 999 min.
"Chirp" alarm: 1 beep per accumulated dose increment (1 μ Sv to 9.99 Sv, 100 μ R to 999 R)
All alarm settings are pass code protected with 3 digit code
Low battery alert when 48 hours of life remain

Data Logging and Communications

Data Storage3000 points

Data log IntervalUser programmable, from 30 to 3,600 seconds

Communication.....Near-field Communications to optional PRR-1 Dosimeter Reader for data log download, dosimeter programming, factory configuration, calibration and firmware upgrade

Power

Battery 1 AA alkaline battery, easily accessible with a coin

Operating Hours..... 750 hours of continuous use

Operating Environment

Temperature **Operating:** -20° to +50°C (-4° to +122°F)
Storage: -30° to +70°C (-22° to +158°F)

Humidity 5 to 95%, non-condensing

Shock Resistance Drop tested from 1.5m (4.9 ft.) onto hardwood surface)

IP Rating..... IP-54

Physical Characteristics

Display LCD display with push button backlight
Three-digit floating-point readout

Direct Readout..... Dose and dose rate, auto-ranging: μ Sv, mSv, or Sv (μ R, mR, or R)

User Interface 2 buttons

Size 52 x 89 x 924 mm (2" x 3.5" x 0.9")
without clip

Weight 130g (4.6 oz.) with battery and clip

Attachments Rugged metal alligator clip and belt clip

Specifications are subject to change