DoseRAE Pro

Personal Radiation Dosage Monitoring

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 users personal radiation exposure.

- Dosimeter and PRD functionality in a rugged, compact package
- Wide dose rate range and energy range maximizes personal protection
- Fast response time to immediately detect radiation threats
- Ease of use minimizes personnel training & support costs and reduces total cost of ownership

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

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

Optional Equipment:

- PRR-1 DoseRAE Pro Dosimeter Reader and software

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DoseRAE Pro

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Specifications	
Sensors	
Gamma Sensors	CsI (TI) + photodiode (low environment radiation), Energy-compensated PIN diode (level of radiation protection)
Dose Rate Range	0.01 µSv/h to 9.99 Sv/h (1 µR/h to 999 R/h)
Accuracy of Dose Rate	±20% (from 10 µSv/h to 9.99 Sv/h or from 1mR/h to 999 R/h), ±30% (from 0.01 µSv/h to 10 µSv/h or 1 µR/h to 1 mR/h)
Dose Range	0.01µSv to 9.99Sv (1µR to 999R)
Dose Accuracy	±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 µSv to 9.99 Sv (100 µR to 999 R)
	- Dose Rate: continuously adjustable: 1 µSv/h to 9.99 Sv/h (100 µR/h to 999 R/h)
	- Stay Time: 1 to 999 min.
	- "Chirp" alarm: 1 beep per accumulated dose increment (1 µSv to 9.99Sv or 100µR to 999R)
	- All alarm settings are passcode protected with 3 digit code
	- Low battery alert when 48 hours of life remain
Datalogging and Communications	
Data Storage	3000 points
Datalog Interval	User programmable, from 30 to 3,600 seconds
Communication	Near-field Communications to optional PRR-1 Dosimeter Reader for datalog 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 pushbutton backlight, Three-digit floating-point readout
Direct Readout	Dose and dose rate, autoranging in units of µSv, mSv, or Sv (µR, mR, or R)
User Interface	2 buttons
Size	52 x 89 x 22 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