

NRF50

Electronic Personal Dosimeter



Fuji Electric's NRF50 Electronic Dosimeter takes worker safety to a whole new level, surpassing industry guidelines for real-time monitoring. Able to be retrofitted into existing systems, this device uses Wi-Fi or existing radio remote monitoring systems.

Simple connection to peripheral devices via Bluetooth allows workers to continuously monitor their dose, effectively addressing the issues like dose monitoring in high-noise areas. The dosimeter comes standard with a large visual display for convenient viewing and features an easily distinguishable red emergency call button to notify facility managers of on-site incidents that require assistance.

Fuji Electric Electronic Dosimeters offer a better alternative to traditional electronic dosimetry in nuclear facilities. By providing real-time dose monitoring and 21st technology, workers have additional communication capabilities and are able to make immediate adjustments to reduce their exposure and minimize health risks.

FEATURES

- High sensitivity and quick response time.
- Built-in data communication function
- Superb visibility through use of large dot LCD display.
- Wide measuring range of Dose: 0.1 mrem to 1000 rem (1 μ Sv to 10 Sv)
- Dose rate: 0.1 μ Sv/h to 10 Sv/h (0.01 mrem/h to 1000 rem/h)
- Provides coverage during accident conditions in Dose rate mode (1000R/hr)
- Red emergency call button
- Multi-color backlight
- Compact and lightweight
- Exceptional shock tolerance

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SPECIFICATIONS

Radiation Measured	X-rays and Gamma radiations Hp(10)
Detector	Silicon semiconductor
Measurement Range	Dose: 0.1 mrem to 1000 rem (1 uSv to 10 Sv) Dose rate: 0.01 mrem/h to 1000 rem/h (0.1 uSv/h to 10 Sv/h)
Display Range	Dose: 0.1mrem to 1000 rem (1 uSv to 10 Sv) Dose rate: 0.1 mrem/h to 1000 rem/h (1 uSv/h to 10 Sv/h)
Energy Response	± 20 % (50 keV to 6 MeV)
Angular Response	± 20 % (137Cs, 0 to 75°) ± 50 % (241Am, 0 to 75°)
Accuracy	± 10 % (137Cs)
Dose Rate Linearity	± 10 % (137Cs)
Other Radiological Specifications	Compliant with IEC61526 and ANSI N42.20 Electromagnetic specification, compliant with MIL-STD-461F
Radiation Resistance	Compliant with ANSI N42.17C
Waterproof	IP65
Display	Monochrome Dot LCD (128 x 48 dot) View area 43.5 mm x 16.3 mm (1.71 inch x 0.64 inch) with 3 color back-light (white, red, yellow)
LED	Flash LED x 3 (red) Auxiliary LED x 3 (green, yellow, red)
Buzzer	Piezoelectric buzzer (90 to 100 dB @ 30 cm)
Communication	Electromagnetic induction, Infrared, USB, Bluetooth, 900 MHz radio or Wi-Fi (Telemetry, selectable)
Additional Functions	Thermistor (for temperature compensation), Accelerometer, Vibrator, Call button, (Emergency alarm), Cable connection (USB), external battery (USB-AC adapter)
Accessory functions	Stopwatch, notepad (32 characters)
Trend Data (Historical data)	Max 4000 history (Date, Dose, Dose rate, Status info)
Operating Temperature	-10 °C to 50 °C (14 °F to 122 °F)
Operating Humidity	Up to 95 %RH
Battery	Primary, AA(LR6) battery x 2
Battery Life	Continuous use, 2500 hours
Dimensions	W 2.36 inch x H 4.13 inch x D 1.14/0.71 inch (W 60 mm x H 105 mm x D 29/18 mm)
Weight	Less than 0.22 lb (without battery and clip) (Less than 100 g) Approx. 0.33 lb (with battery and clip) (Approx. 170 g)

