

Electronic Personal Dosimeter

NRF54

x, γ , β



All-in-one dosimeter

Color Backlight

Emergency call button

Large Display

Specification

Versatile and all-in-one, the NRF5 Series dosimeters can be used stand-alone or integrated into a dosimetry or remote dosimetry system.

They can be used to reinforce the protection of workers in controlled areas or areas likely to be exposed to ionising radiation.

They are perfectly suited to the requirements and applications of:

- Nuclear power plants and fuel cycle,
- Decommissioning activities,
- Military defence and civil security: Protection of first responders,
- Research laboratories and education,
- Particle accelerators,
- Industrial activities and non-destructive testing,
- Medical environment (radiological platform).

Reference Standard	IEC61526 Ed.3.0 and ANSI N42.20		
Radiation measured	Hp(10) - X-rays and Gamma (γ) radiations		
	Hp(0,07) - Beta (β) radiation		
Detector	Silicon semiconductor		
Measurement Range	X , gamma (γ) :	Dose	1 μ Sv to 10 Sv
		Dose rate	0,1 μ Sv/h to 10 Sv/h
	Beta (β) :	Dose	10 μ Sv to 10 Sv
		Dose rate	1 μ Sv/h to 10 Sv/h
Display Range	X , gamma (γ) :	Dose	1 μ Sv to 10 Sv
		Dose rate	0,1 μ Sv/h to 10 Sv/h
	Beta (β) :	Dose	10 μ Sv to 10 Sv
		Dose rate	1 μ Sv/h to 10 Sv/h
Energy Range	X , gamma (γ) :	30 keV to 7 MeV	
	Beta (β) :	300 keV to 2,3 MeV	
Energy Response	X , gamma (γ) :	$\pm 20\%$ (50 keV to 6 MeV)	
	Beta (β) :	$\pm 30\%$ (500 keV to 2,2 MeV)	
Angular Response	X , gamma (γ) :	$\pm 20\%$ (^{137}Cs , 0° to 75°); $\pm 50\%$ (^{241}Am , 0° to 75°)	
	Beta (β) :	$\pm 30\%$ ($^{90}\text{Sr}/^{90}\text{Y}$, 0° to 60°)	
Accuracy	X , gamma (γ) :	$\pm 10\%$ (^{137}Cs)	
	Beta (β) :	$\pm 15\%$ ($^{90}\text{Sr}/^{90}\text{Y}$)	
Dose Rate Linearity	X , gamma (γ) :	$\pm 10\%$ (^{137}Cs)	
	Beta (β) :	$\pm 20\%$ ($^{90}\text{Sr}/^{90}\text{Y}$)	
Display	Dot LCD (128x48); Display area: 43,5mm x 16,3mm		
LED	Flash red Led x 3; Auxiliary Led x 3 (green, orange, red)		
Buzzer	Piezzo-electric buzzer (90 to 100 dB; 30cm)		
Communication	USB; Infrared; Electromagnetic induction; Bluetooth; 900Mhz radio or Wi-Fi (selectable)		
USB Interface	USB2.0 micro-B (Use for power supply and communication) - No function to charge battery		
Data Storage	Trend data (Historical data) : Up to 4000 data (Date/ time, Dose , Dose rate, Status) Entry/Exit data: Up to 1000 data		
Battery	Primary, AA(LR6) battery x2		
Battery Life	Continuous use 2500 hours (without alarm/communication)		
Operating Temperature	-10 to 50 $^\circ\text{C}$		
Operating Humidity	$\leq 95\%$		
Water Proof	IP65/67		
EMC	MIL STD 461F		
Dimensions	60 x 105 x 29 mm		
Weight	$\leq 100\text{g}$ (without battery); approx 170g (with 2 battery)		
Other Features	Vibrator; Call Button (Emergency alarm); Thermistor (for temp. Compensation) External Barrely via USB-micro B port; Accelerometer		
Accessory Functions	Stopwatch; Notepad (32 characters)		



Emergency call button



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