



Technology for a Healthy Planet

**imi**

Radiation Detection Instruments since 1986

## Rad 100™ Nuclear Radiation Monitor

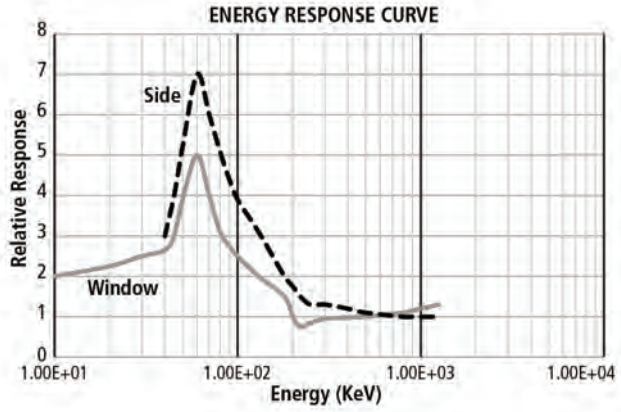

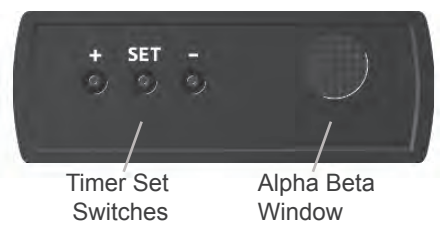


The Rad 100™ measures Alpha, Beta, Gamma, and X-radiation. Its digital display shows readings in your choice of counts per minute (CPM),  $\mu\text{Sv/hr}$  or  $\text{mR/hr}$ , or in accumulated counts. A red LED blinks and a beeper chirps with each count (the chirp can be muted).

- Monitor personal radiation exposure
- Monitor an area or perimeter
- Detect radiation leaks and contamination
- Ensure regulatory compliance
- Monitor changes in background radiation
- Demonstrate principles of nuclear physics
- Check for radioactive minerals in the earth



# Technical Specifications

<b>Detector :</b>	Halogen-quenched Geiger-Mueller detector (LND712) Mica end window density is 1.5-2.0 mg/cm <sup>2</sup> Side wall is 0.012" #446 stainless steel Detects Alpha, Beta, Gamma, and X-radiation	 <p><b>ENERGY RESPONSE CURVE</b></p> <p>The graph plots Relative Response (0 to 8) against Energy in KeV on a logarithmic scale (1.00E+01 to 1.00E+04). Two curves are shown: a solid line for the 'Window' detector and a dashed line for the 'Side' detector. The 'Side' curve peaks at approximately 7.5 at 100 KeV, while the 'Window' curve peaks at approximately 5.5 at the same energy level. Both curves show a sharp decline in response as energy increases beyond 100 KeV.</p>
<b>Display :</b>	4-digit liquid crystal display with mode indicators	
<b>Operating Range :</b>	μSv/hr: .000 to 1,100 mR/hr: .000 to 110 CPM: 0 to 350,000 CPS: 0 to 3,500 Total: 0 to 9,999,000 counts	
<b>Calibration:</b>	Cesium-137 (gamma)	
<b>Gamma Sensitivity :</b>	1,200 CPM/mR/hr, 120 CPM/μSv/hr (Cs-137)	
<b>Accuracy :</b>	±10% typical; ±15% maximum	
<b>Count Light :</b>	Red LED flashes with each count	 <p>High Quality, High Contrast LCD Display</p>  <p>Timer Set Switches      Alpha Beta Window</p>
<b>Audio :</b>	Beeper chirps for each count (can be muted)	
<b>Ports :</b>	<ul style="list-style-type: none"> <li>Output: Stereo 3.5 mm jack sends counts to computers, data loggers, other CMOS-compatible devices, earphones, and educational data collection systems. 0-9 V, 1 kOhm impedance.</li> <li>Input: 2.5 mm mono jack provides calibration input. 0-3.3 V, &gt; 5 μs width, rising edge triggered.</li> </ul>	
<b>Anti-Saturation :</b>	Readout holds at full scale in fields up to 100 times the maximum reading	
<b>Temperature Range :</b>	-20° to +50° C, -4° to +122 F	
<b>Power :</b>	One 9-volt alkaline battery; nominal battery life 2,000 hours typical, 700 hours minimum at normal background radiation levels at sea level. Battery life decreases as radiation level rises.	
<b>Size :</b>	150 x 80 x 30 mm (5.9" x 3.2" x 1.2")	
<b>Weight :</b>	225 grams (8 oz) including battery	
<b>Options :</b>	Computer software and cable available	
<b>Certifications :</b>	CE Certified: Emissions: EN 55011:2009 + A1:2010 (Class B emissions limits); EN 61326-1:2006 (Class B) RF Emissions Immunity: EN 61326-1:2006 (Annex C) Portable Test and Measurement Equipment; EN 61000-4-2:1995 (ESD); EN 61000-4-3:1997 (EM) RoHS Compliant Meets WEEE standards	

Specifications subject to change without notice. Rev. A.

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