



## World-Class Radiation Detectors

Alpha • Beta • Gamma • X Radiation

For a Safer World



# Rad100™ Nuclear Radiation Monitor

The Rad100 slide switches can be operated while wearing safety gloves.  
- A simple and intuitive user interface requires minimal training -



The Rad100 measures alpha, gamma, and X-radiation. Its digital display shows readings in your choice of counts per minute (cpm)  $\mu$ Sv/hr or mR/hr or in accumulated counts. A red LED blinks and a beeper chirps with each count (can be muted). An audible alert sounds when the radiation reaches a user-adjustable level.

- 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

**World's Best Warranty - 2 years  
(limited to one year on GM sensor)**

**Each instrument is shipped with a printed manual and Certificate of Conformance.**

# Technical Specifications

<b>Detector:</b>	Halogen-quenched Geiger-Mueller detector (LND 712) 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
<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 referenced to Cs-137
<b>Accuracy:</b>	±10% typical; ±15% maximum
<b>Alert Range:</b>	µSv/hr: .001 to 500 mR/hr: .001 to 50 CPM: 1 to 60,000 CPS: 1 to 1,000 Beeper sounds the alert
<b>Timer:</b>	Can set sampling periods of 1 minute to 40 hours
<b>Averaging Periods:</b>	Display updates every 3 seconds, showing the average for the past 90-second time period at normal levels. The averaging period decreases as the radiation level increases.
<b>Count Light:</b>	Red LED flashes with each count
<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>	<b>One AA alkaline battery provides typically 3 to 6 months battery life for continuous use at normal background radiation levels.</b>
<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>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
<b>Optional Accessories:</b>	Computer Software and Cable; Red Protect® Boot; Wall Mount Holder; GeigerLink™ Kit

## Sensitivity using Mica Window

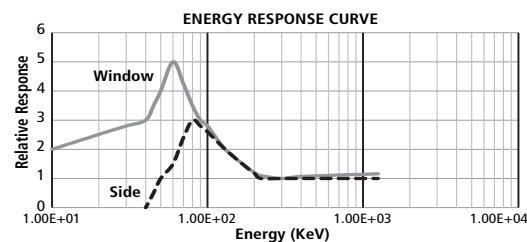
Alpha - Down to 2.5 MeV; typical efficiency at 3.6 MeV is greater than 80%.

Beta - typical efficiency at 50 keV is 35%

Beta - typical efficiency at 150 keV is 75%.

Gamma and x-rays as low as 10 keV (typical)

Specifications subject to change without notice.



LCD Display



End Panel



Back

Alert Switches

Alpha Window



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