

### **World-Class Radiation Detectors**

Alpha • Beta • Gamma • X Radiation For a Safer World

## Radalert 100X<sup>™</sup> Nuclear Radiation Monitor

The Radalert 100X slide switches can be operated while wearing safety gloves.

- A simple and intuitive user interface requires minimal training -



The Radalert 100X measures alpha, gamma, and X-radiation. Its digital display shows readings in your choice of counts per minute (cpm) µSv/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 useradjustable 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

The Radalert 100X is the prefrred radiation detector for many fire departments and hazmat teams.

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**

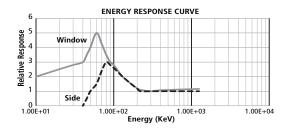
Detector:	Halogen-quenched Geiger-Mueller detector (LND 712) Mica end window density is 1.5–2.0 mg/cm² Side wall is 0.012" #446 stainless steel Detects Alpha, Beta, Gamma, and X-radiation
Display:	4-digit liquid crystal display with mode indicators
Operating Range:	μSv/hr: .000 to 1,100 mR/hr: .000 to 110 CPM: 0 to 350,000 CPS: 0 to 3,500 Total: 0 to 9,999,000 counts
Calibration:	Cesium-137 (gamma)
Gamma Sensitivity:	1,200 CPM/mR/hr referenced to Cs-137
Accuracy:	±10% typical; ±15% maximum
Alert Range:	μSv/hr: .001 to 500 mR/hr: .001 to 50 CPM: 1 to 60,000 CPS: 1 to 1,000 Beeper sounds the alert
Timer:	Can set sampling periods of 1 minute to 40 hours
Averaging Periods:	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.
Count Light:	Red LED flashes with each count
Audio:	Beeper chirps for each count (can be muted)
Ports:	<ul> <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>
Anti-Saturation:	Readout holds at full scale in fields up to 100 times the maximum reading
Temperature Range:	-20° to +50° C , -4° to +122° F
Power:	One AA alkaline battery provides typically 3 to 6 months battery life for continuous use at normal background radiation levels.
Size:	150 x 80 x 30 mm (5.9" x 3.2" x 1.2")
Weight:	225 grams (8 oz) including battery
Certifications:	€ 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
Optional Accessories:	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 isl 35% **Beta** - typical efficiency at 150 keV is 75%.

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



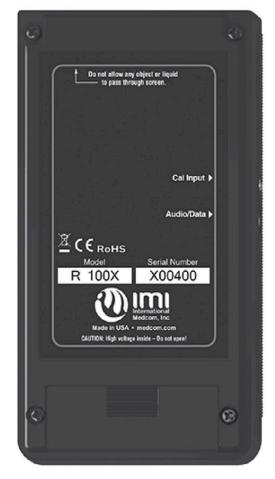
LCD Display



**End Panel** 



Back Alert Switches Alpha Window



Specifications subject to change without notice. 180615-IMI-RA100X



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