



Technology for a Healthy Planet

**imi**

Radiation Detection Instruments since 1986

## IMI Inspector Alert™ V2 Surface Contamination Meter



The IMI Inspector Alert™ V2 measures alpha, beta, gamma and X-radiation using a 2-inch “pancake” GM detector with high sensitivity to common beta and alpha sources. The easy-to-read digital display shows reading in your choice of Dose Rate -  $\mu\text{Sv/hr}$  or  $\text{mR/hr}$ , and Count Rate - CPM or CPS. The Total / Timer feature allows timed readings from one minute to 40 hours for precise measurement of low-level contamination. An Audible alert sounds when the radiation reaches a user-adjustable level.

- Quickly alerts user to the presence of harmful levels of nuclear radiation
- Detects noble gases and low energy radionuclides
- Automatically compensates for GM tube dead time
- Will not jam in high radiation fields
- Meets CE Certification, RoHS compliant and WEEE standards

# Technical Specifications

<b>Detector:</b>	Halogen-quenched Geiger-Mueller tube Effective diameter 1.75" (45 mm) Mica window density 1.5-2.0 mg/cm <sup>2</sup> Detects Alpha, Beta, Gamma, and X-radiation		
<b>Display:</b>	4-digit liquid crystal display with mode indicators		
<b>Operating Range:</b>	<p>μSv/hr: .01-1,100 mR/hr: .001-110 CPM: 0-350,000 CPS: 0-5,000 Total: 1-9,999,000 counts</p>	<p><b>ENERGY RESPONSE CURVE</b></p> <p>The graph plots Relative Response (0 to 6) against Energy (KeV) on a logarithmic scale (1.00E+01 to 1.00E+04). A solid line labeled 'Window' shows a peak at approximately 60 KeV. A dashed line labeled 'Side' shows a peak at approximately 30 KeV. Vertical lines are drawn at approximately 60 KeV and 1.5 KeV.</p>	
<b>Calibration:</b>	Cesium-137 (gamma)		
<b>Gamma Sensitivity:</b>	3500 CPM/mR/hr referenced to Cs-137 Smallest detectable level for I-125 is .02 mCi at contact		
<b>Efficiency:</b>	For 4 pi at contact :		
<b>Isotope</b>	<b>Energy</b>	<b>Efficiency</b>	
C-14 (Beta)	49 keV avg. 156 keV max.	5.3%	
Bi-210 (Beta)	390 keV avg. 1.2 MeV max.	32%	
Sr-90 (Beta)	546 keV and 2.3 MeV	38%	
P-32 (Beta)	693 keV avg. 1.7 MeV max.	33%	
Am-241 (Alpha)	5.5 MeV	18%	
<b>Accuracy:</b>	±10% typical; ±15% maximum		
<b>Alert Range:</b>	<p>μSv/hr: 0 to 500 mR/hr: 0 to 50 CPM: 0 to 160,000 Beeper sounds the alert</p>	<p>The image shows the physical device. The top panel has three buttons labeled '+', 'SET', and '-'. The main unit features a large circular display screen with a grid pattern. Text on the screen includes 'CAUTION: High voltage inside - Do not open!', 'Do not allow any object or liquid to pass through screen.', 'Cal Input', and 'Audio/Data'. Below the screen are CE, RoHS, and a triangle symbol. A label shows 'Model' and 'Serial Number 20135'. The IMI logo and 'International Medcom, Inc.' are at the bottom, along with 'Made in USA' and 'medcom.com'. A symbol at the bottom indicates the center of the GM tube.</p>	
<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 30-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. 0-9V, 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; battery life 2000 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>	323 grams (11.4 oz) including battery		
<b>Options:</b>	Computer software and cable available		
<b>Certifications:</b>	<p>CE Certified: Emissions: EN 55011:98 + A2 (Class B emissions limits); EN 61326: 06 (Class B) RF Emissions Immunity: EN 61326: 06 (Annex C) Portable Test and Measurement Equipment; EN 61000-4-2: 95 (ESD); EN 61000-4-3: 97 RoHS Compliant; Meets WEEE standards</p>		

\*Specifications subject to change without notice.

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