

## Inspector Alert

Geiger detector for measurement of alpha, beta and gamma and X-rays

### Main features:

- 3 second update
- audible and silent alarms
- count rate and dose rate mode
- audio output jack
- simple operation
- $\mu\text{Sv/hr}$  or  $\text{mR/hr}$  options



The Inspector portable radiation monitor measures alpha, beta, gamma and x-radiation using a 44 mm "pancake" geometry Geiger-Müller detector with particularly high sensitivity to contamination of surfaces by beta and alpha sources. The large display shows readings in a choice of  $\mu\text{Sv/hr}$ ,  $\text{mR/hr}$ , counts-per-second, or counts-per-minute. The timer feature allows timed readings from 1 minute to 24 hours for precise measurement of low-level contamination. An audible alert sounds when the radiation reaches a user-adjustable threshold level. The instrument automatically compensates for GM tube dead time and anti-saturation circuitry prevents the instrument jamming in very high radiation fields.

### Specifications:

Sensor	Halogen-quenched Geiger-Mueller tube. Effective diameter 45 mm. Mica window density $1.5\text{-}2.0 \text{ mg/cm}^2$
Display	4-digit liquid crystal display with mode indicators
Operating range	$0.01\text{-}1000.00 \mu\text{Sv/hr}$ (Cs-137); cps: 0 - 5000
Averaging Periods	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. User can select fast 3-second averaging period
Calibration	Cesium 137 (662 keV gamma)
Sensitivity	$350 \text{ cpm}/\mu\text{Sv/hr}$ referenced to Cs-137
Accuracy	$\pm 10\%$ typical; $\pm 15\%$ max

Efficiency	Sr-90 (546KeV, 2.3MeV $\beta$ max): approx. 75%; C-14 (156KeV $\beta$ max): approx. 11%; Bi-210 (1.2 MeV $\beta$ max): approx. 64%; Am-241 (5.5 MeV $\alpha$ ): approx. 36%
Count light	Red LED flashes with each count
Audible signal	Chirps for each count (can be muted)
Timer	Can set 1-10 minute sampling periods in 1-minute increments, 10-50 minute sampling periods in 10-minute increments, and 1-24 hour sampling periods in 1-hour increments
Outputs	Dual miniature jack drives CMOS or TTL devices, sending counts to computer or data logger. Submini jack allows for electronic calibration.
Power	One 9-volt alkaline battery, battery life is minimum 200 hours at normal background
Anti-Saturation	Readout holds at full scale in fields up to 100 times the maximum reading
Dimensions	150 x 80 x 30 mm
Weight	350 grams

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