

Inspector EXP Handheld Digital Radiation Alert[®] Detector

The Inspector EXP was designed to meet the requirements of emergency response personnel. It has the same valuable features, small size, and quality of the Inspector. However, instead of the built-in detector, it has the added versatility of an external probe. The carrying case has a clear window panel providing full view of the readout, count light, access to the switches, and a convenient belt loop for carrying the instrument. A small pocket is provided for a check source. The protective probe cover on the uniquely designed carrying case folds easily out of the way to allow one-handed operation if desired.



INSP Inspector+ Survey Meter with Internal GM Probe
XTR-BOOT XTREME Protective Boot for Inspector
XTR-BOOT-Y XTREME Boot Yellow Nylon Carrying Case
SEI-WP Wipe Test Plate for Inspector+ only
SEI-RPC Rugged, Waterproof Protective Case

Specifications

Detector Internal Halogen-quenched, uncompensated GM tube with thin mica window, 1.4-2.0 mg/cm² areal density. Effective diameter of window is 45 mm (1.77 in.). Radiation symbol on front label and end panel marks the center of the detector.

Operating Range mR/hr - .001 (1μR) to 100 CPM - 0 to 350,000; μSv/hr - .01 to 1000 CPS - 0 to 5000; Total/Timer - 1 to 9,999,000 counts; Accuracy (Referenced to Cs137); Typically ±15% from factory, ±10% with NIST Source Calibration

Energy Sensitivity Detects Alpha down to 2 MeV. Detects Beta down to .16 MeV; typical detection efficiency at 1 MeV is approx. 25%. Detects Gamma down to 10 KeV through the end window. 3340 CPM/mR/hr (Cs137). Smallest detectable level for I125 is .02 μCi at contact.

Built-In Efficiencies Sulfur (S35), Strontium (Sr/y90), Cesium (Cs137), Phosphorus (P32), Carbon (C14), Iodine (I131), Cobalt (Co60), and Alpha

Selectable Alert Set Range mR/hr .001 - 50 and CPM 1 - 160,000. 70db @ 1m. Pulsating beeper sounds the alert. Adjustable alert levels are used for mR/hr / CPM, and μSv/hr / CPS. Alarm will sound when in Timer Mode when set alarm threshold is reached.

Anti-Saturation Meter will hold at OVER RANGE in fields as high as 100 times the maximum reading.

Averaging Periods Display updates every 3 seconds. At low background levels, the update is the average for the past 30-second time period. The timed period for the average decreases as the radiation level increases.

Display Backlit 4 digit liquid crystal display with indicators. Display updates every 3 seconds.

Count Light Red LED flashes with each radiation event.

Audio Indicator Internally mounted beeper (can be switched off for silent operation)

Outputs 3.5mm jack for CMOS or TTL devices and counts to computer or datalogger.

Power Requirements One 9-volt alkaline battery. Battery life is approx. 2160 hours at normal background.

Temperature Range -10°C to 50°C (14°F to 122°F)

Weight 635 g (22.4 oz.)

Size 150 x 80 x 30 mm (5.9 x 3.1 x 1.2 in.); Probe: 260 X 70 X 25 mm (10.25 X 2.75 X 1 in)

Includes Carrying Case, Observer USB Software Download, USB Cable, Certification of Conformance.

Limited Warranty 1 year limited warranty

Optional RAP Scintillation Detectors for Inspector EXP

RAP 47 Scintillation Detector

Thin-crystal (1 mm) optimizes sensitivity to low energy gamma radiation while minimizing sensitivity to higher energies. An excellent detector for Iodine-125 and suitable for thyroid uptake measurements.

Detector Type: CsI (Tl) crystal (Cesium Iodide Thallium)

Probe Construction: Anodized aluminum housing.

1.0" dia. x .04" thick (25.4 x 1.0mm)

Connectors: Standard MHV. Cable (Optional)-Straight RG59/u, length 3.5 feet.

Radiation Detected: Gamma 8 keV- 1 MeV. Typical Absorption 100% at 47keV, 80% @ 100 keV

Temperature Range: -25°C to 40°C (-4°F to 104°F)

Humidity Range: 0 to 90% Relative Humidity.

Weight: Approx. 178 g (6.3 oz.) without cable



RAP 200 Scintillation Detector

A 0.25-inch crystal optimizes this for the detection of special nuclear material (SNM) such as U-235, or related isotopes such as Am-241.

Detector Type: CsI (Tl) crystal (Cesium Iodide Thallium)

Probe Construction: Anodized aluminum housing. 1.0" dia. x .25" thick (25.4 x 6.35mm)

Connectors: Standard MHV. Cable (Optional)-Straight RG59/u, length 3.5 feet.

Radiation Detected: Gamma 8 keV to 1 MeV. Typical Absorption 97% at 1007keV, 77% at 185 keV

Temperature Range: 25°C to 40°C (-4°F to 104°F)

Humidity Range: 0 to 90% Relative Humidity.

Weight: Approx. 240 g (8.5 oz.) without cable

RAP 640 Scintillation Detector

Superior to a 1 x 1-inch NaI detector, this is a great choice for an all-around gamma and x-ray detector. Optimal energy range of about 20 keV to 2 MeV. Highest efficiency for a broad spectrum of gamma-emitting isotopes.

RAP640-C Probe Cable with MHV-C Connector