

These highly sensitive radiation detection devices are designed for early warning detection and interdiction of harmful nuclear materials.

## PM1401GN

Gamma/Neutron Pager



Gamma dose rate indication

Simple two button controls

Data logging

Configurable via PC

### General

The PM1401GN pocket-sized instrument is designed as a highly sensitive measurement device that may be conveniently worn on a belt to provide warning of rising levels of gamma and neutron radiation. These units are typically used to search for, detect and locate radioactive materials in a variety of situations. They also provide an excellent tool for extending stationary monitoring systems to expand the surveillance or to verify alarms of such systems and locate the offending item(s).

Compared to the smaller pager size devices, the larger pocket-size PM1401GN offers enhanced sensitivity thereby increasing the chance of detection. Another key feature provided is early warning capability and audible annunciation.

### Detectors

The PM1401GN utilizes two separate detectors, one for gamma and another for neutrons. A CsI(TL) scintillation detector senses gamma emitting radioactive materials with energies between .06 and 3.0 MeV with a useful detection range of 0.05 to 40  $\mu\text{Sv/h}$  (5 to 4000  $\mu\text{R/h}$ ). The neutron detector is a  $^3\text{He}$  counter tube sensitive to neutrons between thermal and 14 MeV.

### Controls

A single push-button provides access to all the necessary functions of this user-friendly design. A second button lights the display for use in dark ambient conditions. These detection devices include an integral vibrator which may be set by the user to activate any time an alarm setpoint is exceeded.

## Pocket Gamma/Neutron Monitor

### Gamma

Detector:	CsI (TI) scintillator.
Measurement Range:	0.05 to 40 $\mu$ Sv/h (5 - 4000 $\mu$ R/h). Equivalent dose rate $^{137}\text{Cs}$ .
Energy Range:	0.06 to 3.0 MeV.

### Neutron

Detector:	$^3\text{He}$ Counter tube with mixture of $^3\text{He}$ (8 atmospheres) and argon (2 atmospheres)
Energy Range:	Thermal to 14 MeV.

### General

Measurement Time:	0.25 seconds.
Detection Sources:	Meets ITRAP (Illicit Trafficking Radiation Detection Assessment Program).
Alarm Types:	Audio tone and/or vibration.
Power Requirements:	One AA size battery. Life expectancy is approximately 600 hours.
PC Communications:	IR-interface.
Data Collection:	900 data points stored in non-volatile memory.
Operating Temperature:	-30° to 50° C (-22° to 122° F).
Water Tightness:	IP67 (optional water resistance to 20 meters)
Drop Test:	0.7 m (27.5 inches) onto concrete surface.
Dimensions:	97 x 57 x 32 mm (3.8 x 2.2 x 1.2 inches). Not including clip.
Weight:	365 g (12.9 oz). Including battery.

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