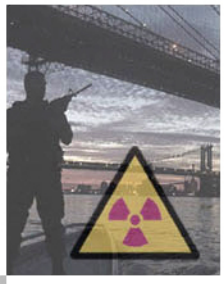
TSA PRM470

Gamma & Gamma/Neutron Handheld Detectors



The TSA PRM470 personal hand-held radiation monitor is ideal for searching at plant exits and material access areas, as well as contamination and background monitoring. The small size, light weight, and long battery life make it ideal for searching vehicles that require extended search times. The PRM470 hand-held is a popular choice for locating radioactive sources and measuring intensity in the field.

Advanced Design Features

The TSA PRM470 uses low power electronics to provide up to 17 hours of continuous operation from the rechargeable batteries. The PRM470 also features a self-test during power up, automatic background count and user determined alarm settings. Detection information and parameters are easy to read on the backlit display that can be used in dark or light conditions.

Programmable Detection Parameters

Settings may be configured from the front panel, or from a personal computer.

Easy-to-Operate

The TSA PRM470 is typically ready to use within 20 seconds of start-up. It features an audio and visual search/find mode to assist in pinpointing radioactive sources. It also uses a motion switch to automatically switch from background to search mode when the instrument is moved. After the instrument has been at rest for a preset duration, it will revert to background update. The unit may be programmed by the user to scale the display to CPS, µSv/hr or mR/hr. This conversion is not energy compensated. Therefore, the value displayed is only an approximation of actual dose rate.

As detected counts increase, so does the frequency of the audio signal helping to pinpoint the location of the radioactive source. LED indicators respond in similar fashion, flashing faster as counts increase. On gamma and neutron instruments, the LED indicators also assist to identify the type of radiation being detected (a red LED for gamma, and blue LED for neutron radiation).

A serial port is available for managing detection parameters and controlling security levels for the individual unit from a computer.

Versatile On Demand Screening

Easy-to-Operate

Day or Night Operation

Cost Effective Primary or Secondary Screening

FEATURES

- Programmable Detection Parameters
- Programmable Security Levels
- Audio and Visual Indicators
- Universal Power Supply
- Serial Port Connectivity
- NmHi Battery Pack

Flexible Detection Options

The TSA PRM470 is available in three configurations; Gamma, Neutron or a combination of Gamma and Neutron detection. Gamma provides detection of ionizing radiation and Neutron provides detection of Special Nuclear Materials (SNM) while the combined Gamma and Neutron provides the most powerful detection capabilities for radioactive isotopes even in shielded materials.

TSA PRM470

Specifications

Sensitivity	Will detect 10g HEU or 1g ^{239}Pu when tested in accordace with ASTM Standard C 1237*
Detectors	**Gamma**: One, 3.5 h x 2.88 w x 1.24 d in. (8.8 x 7.2 x 3.1 cm) organic plastic scintillator detector; provides approximately 12.6 in^3 (206cc) of detector volume. **Neutron**: Two, He^3 tube, 4 in. (10.2 cm) active, 4 ATM. **Gamma and Neutron**: One, 3.5 h x 2.88 w x 1.24 d in. (8.8 x 7.2 x 3.1 cm) organic plastic scintillator detector; provides approximately 12.6 in^3 (206 cc) of detector volume and one, He^3 tube, 4 in. (10.2cm) active, 4 ATM.
Alarm Level	User configurable from 0.1 to 9.9 sigma
Alarm Indication	Audible tone and LED
Count Time	Gamma search mode: 0.05 sec. count with 0.4 sec. moving average. Neutron: 1 sec. count time. Background time: Operator configurable
Display	Alphanumeric LCD, 4 lines x 16 characters, with back-light
Power Requirements	Internal rechargeable battery pack
Dimensions	Box = 7.75 h x 4.75 w x 3.5 d in. (19.7 x 12.06 x 8.9 cm) Handle = 4.75 h x 2.75 w x .75 d in. (12.06 cm x 7.00 cm x 1.90 cm)
Weight	2.4 lb (1.1 kg) with batteries
Environmental	32° to 100°F (0° to 38°C)

*ASTM Standard C 1237 is available from your Rapiscan Systems sales representative or The American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428 (610) 832-9585

Definitions

Gamma Detection - For the detection of ionizing radiation.

Neutron Detection - Typically used to detect Special Nuclear Materials (SNM).

Gamma and Neutron Detection - For full spectrum detection capabilities.

Options

Replaceable Alkaline Battery

Serial Port

Rapiscan® systems
An OSI Systems Company

LAURUS SYSTEMS

LAURUS Systems, Inc. - Ph: 410-465-5558 - Fax: 410-465-5257 - www.LaurusSystems.com