

G5311-200

Package Contamination Portal Monitor

Introduction

The ANTECH G5311-200 Package Portal Monitor is designed to detect radioactive contamination in components or small packages. It functions in the same manner as larger, more conventional portal monitors used to measure people or vehicles. The G5311-200 provides a more convenient and cost effective alternative to a tool or small item monitor, with lower sensitivity but shorter measurement times.

Two plastic scintillator panels, one on each side of the portal, are contained within a steel shield which covers all surfaces except those facing the aperture. The unit continually updates the background count rate using the Sequential Probability Ratio Test (SPRT) algorithm and performs a measurement when the measurement button is pressed, after which there is a fixed time period during which to pass items through the unit. The alarm levels and other parameters are preset but can be modified using a laptop connected to the unit by a serial or USB link.

The unit contains all the necessary electronics including microprocessor based controller, power supplies, amplification, single channel analyser and high voltage bias supply to constitute a stand-alone battery powered monitoring instrument.

Features

- Low power consumption enabling extended operation on conventional D cell batteries
- Audible and visible alarm indicating elevated contamination (user selectable)
- Adjustable alarm threshold using external notebook computer connected via USB port
- Continual update of background count rate

Specification

External dimensions (H x W x L)	610 mm x 380 mm x 1070 mm (24.02 in x 14.96 in x 42.13 in)
Aperture dimensions (H x W)	450 mm x 850 mm (17.72 in x 33.46 in)
Typical detection levels	0.5 μ Ci of ^{137}Cs

Benefits

- Very rapid screening for radioactive contamination reduces inconvenience to operator
- Unit can be monitored locally or remotely using a laptop computer and ANTECH portal monitor software
- Unit is easily transported
- Compliant to ASTM C1112-93
- Uses digital electronics with reduced electrical noise
- Useful for screening packages or objects for radioactive content of radioactive surface contamination

