

Previous model number: 5113

G5321-400

Baggage and Air Freight Contamination Portal Monitor

Introduction

The ANTECH G5321-400 Baggage and Air Freight Contamination Portal Monitor is designed to detect gamma-ray emitting radioactive materials in and surface contamination on baggage and air freight containers. It has gamma-ray detection capability and measurements are performed by sensitive shielded and collimated plastic scintillator detectors that use low noise photomultiplier tubes with state of the art digital electronics.

The technology behind the ANTECH G5321-400 is derived from work performed at the Los Alamos National Laboratory (LANL) in the United States and implemented in the late 1980s by Jomar Systems. Since the transfer of this technology to ANTECH, extensive improvements have been made and ANTECH portal monitoring technology represents the current state of the art for contamination monitoring.

The operation of the G5321-400 is automated by an onboard microprocessor controller that performs system diagnostic testing, input monitoring and background discrimination. The controller employs algorithms based on the Sequential Probability Ratio Test (SPRT), developed originally by Fehlau and others at LANL. The G5321-400 contains all the necessary electronics, including controller, power supplies, amplification, single channel analyser and high voltage bias supplies to constitute a robust stand alone instrument.

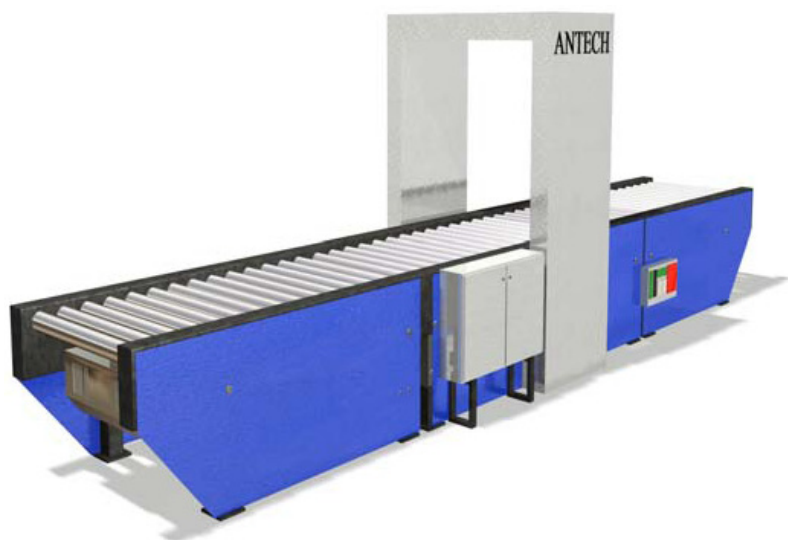
The G5321-400 is available in the standard configuration that surrounds a conveyor, as illustrated above. It is compliant with the requirements of ASTM C1112-93 and consistent with the requirements of ASTM C1169-92.

Features

- RS-232/Ethernet interface for controller set-up or remote monitoring
- User selectable alarm provided as visual, audio or electronic signal
- Digital detector electronics including low noise photomultiplier
- Archiving of detection and background statistics
- Operation in continuous pass through or hold and measure mode

Benefits

- Reliable operation with very low rate of false alarms
- Uses digital electronics with reduced electrical noise
- Unattended automatic operation with optional operator screen
- Applicable to indoor or harsh outdoor operation
- Useful for screening packages or objects for radioactive content of radioactive surface contamination
- Compatible with ANTECH Remote Monitoring Software, which runs on a conventional PC with RS-232 or Ethernet connectivity - displays status and alarms



Specification

Typical outer width of configuration surrounding a conveyor, as illustrated above	1480 mm (58.27 in)
Internal dimensions of configuration surrounding a conveyor, as illustrated above (H x W x D)	1600 mm x 1080 mm x 680 mm (62.99 in x 42.52 in x 26.77 in)
Scintillation panels	4
Detection level	< 0.5 μ Ci (18.5 kBq) of ^{137}Cs (typical)