

CR-Portal IGC

Cargo Radiation Detection Solution



Security & Detection Systems

Best value for nuclear material detection with NORM Discrimination

The CR-Portal IGC (Isotope Group Classification) gamma/neutron detection solution is designed for 24/7 monitoring and is best suited as a primary monitor for high-throughput applications. It provides isotope group identification on regularly encountered bare sources making secondary screening much easier for the operator. The portal uses ^3He -free $^6\text{LiZnS}$ neutron detectors for reliable detection of the smallest quantities of special nuclear materials (SNM).

It offers intelligent, naturally occurring radioactive materials (NORM) discrimination resulting from well-tested isotope group classification. The CR-Portal IGC leverages the Symetrica Discovery Technology® in a fully integrated portal configuration using two or four radiation sensor panels with optional gate control, camera, OCR and LPR systems plus networking capability using L-3's industry-leading ClearView™ Workstation.

L-3's CR-Portal IGC easily integrates into secure facilities, and can be used with other X-ray or gamma scanning systems, without interference. This primary monitoring solution interfaces with secondary adjudication setups, such as our CR-Portal HR (High Resolution). Screening results and state of health (SOH) information are acquired and processed by L-3's StradSCAN™ communications system and sent to a command and control station (CCS). Results are displayed to create a unified and

customized view of the critical information analysts need to assess cargo contents.

As an optional algorithm feature, the presence of low-level surface contamination can also be detected to further triage containers that are surface contaminated. Our safe portal uses passive radiation detectors and is specifically designed for a wide variety of uses.

PORTAL APPLICATIONS

- Vehicle and cargo gates
- Fixed/mobile airport freight cargo and baggage
- Conveyor belt
- Pedestrian

BENEFITS

- ITRAP+10 tested probability of detection (POD) with less than 1 in 103 false alarms
- Improved operational efficiency through a reduction in nuisance NORM alarms of > 75% over standard, 1st generation, energy windowing, PVT portals
- Enhanced calibration tool reduces maintenance cost
- Real-time detection monitoring provides overall sensitivity and spectral-shaping information between maintenance visits



SPECIFICATIONS:

Standard Features

- Gamma-neutron (PVT/non-He3) monitors meet or exceed NORM-discrimination ANSI N42.35 and IEC62244 Standards
- Discovery Technology® algorithms using de-convolution enhanced spectral processing for isotope classifications/ID represent a unique and significant enhancement over standard PVT detectors.:
- Monitors for the presence of very large gamma sources (e.g., dirty bombs)
- Class leading ³He-free ⁶LiZnS neutron detection technology:
 - 3.8cps/ng Cf-252 at 2m provides market leading detection capability
 - Real-time neutron detector health monitoring guarantees detection performance
- Very low False Alarm Rate (0.001 FAR at the 99% confidence level)
- Real-time data acquisition and processing with L-3 SDS proprietary StradSCAN™ to fuse multiple sensor inputs (e.g., radiation data, OCR, GPS, system state of health)
- ICD 1 and 2 data output per ANSI N42.42 and equivalent international data format standards
- Automatic data logging with wide range of user-configurable interfaces and displays, including integrated data replay capability
- Rugged design proven against severe maritime or harsh climate environments

Optional Features

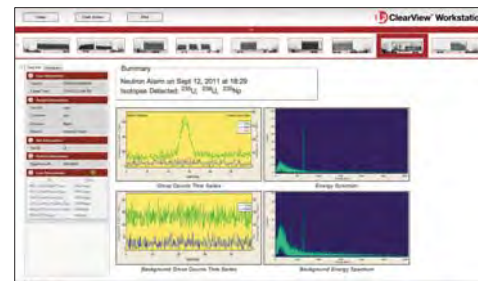
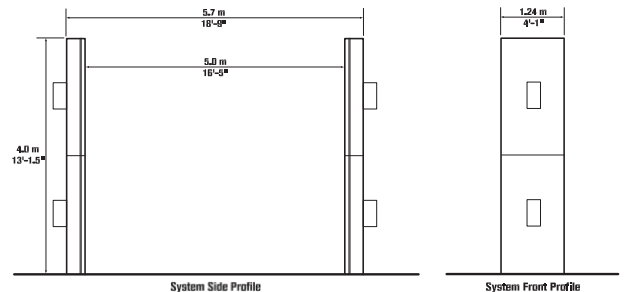
- Can be jointly operated with CR-Portal HR for streamlined secondary screening
- Can operate with co-located X-ray systems (such as L-3's CX-cargo solutions)
- Data integration into ClearView Workstation (shipping manifest and CX- cargo data)
- Cold or warm climate packages
- Design and installation of border or port-specific command and control station
- Cameras, day and night operation
- License plate reader (LPR) day and night operation
- Optical character recognition (OCR)

Safety

- Meets applicable US and European regulatory safety requirements for radiation scanning systems
- Visual and audible warning systems for operator
- Designed for compliance with UL requirements
- CE compliant

Comprehensive Solutions

L-3's Cargo Solutions provide both configurable products and customized solutions that address unique, cutting edge requirements. The CR-Portal IGC is part of a family of radiation detection platforms that serve the full range of cargo and non-proliferation environments and applications.



Typical time series and spectral analysis displays from ClearView Workstation



Security & Detection Systems

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