SPIR-Ident Vehicle GN

Advanced Spectroscopic Monitor

Nuclear Power

Healthcare

Homeland Security & Defense

Labs and Education

Industrial and Manufacturing

OVERVIEW

The **SPIR-Ident Vehicle GN** is a combined gamma and neutron spectrometric portal monitor. It is the most advanced detector of the SPIR family and a new concept for site and critical infrastructure protection against radiological threats, such asintrusion of special nuclear materials (SNM) or radiological dispersion devices (RDD).

The **SPIR-Ident Vehicle GN** is able to solve the major limitation of current systems by automatically sorting innocent alarms from actual alarms in real-time, without compromising the detection performances of actual SNM, RDD or unexpected radioactive sources.

The **SPIR-Ident Vehicle GN** Portal is intended for secondary screening as a complement to plastic scintillation-based detection portals.

The **SPIR-Ident Vehicle GN** provides a cost and performance effective solution and an alternative to dynamic Advanced Spectroscopic Portals (ASP's) for vehicle and containers.

KEY FEATURES

Identification of gamma sources and Special Nuclear Materials in vehicles and containers.

- Cost effective secondary screening solution
- Automated log with spectrum and image capture
- Large Volume NaI Gamma and Neutron detectors
- Flexible configurations: single or double sided, single or double height
- Masked and shielded SNM and RDD identification
- NORM and in vivo medical source rejection
- Simplified operation with full camera support
- «Easy» display mode and advanced mode

Health Physics Division

DESCRIPTION

- One to four detection pillars including each a 2 or 4 liter NaI(Tl) gamma detector and one or two moderated He3 or BF3 neutron detectors
- Three sided lead shielding
- Each gamma detector is associated with a fast digital spectrometer
- Standard or Panel PC with SPIR-IDENT Server software, Portal and Expert mode interface
- Includes SIA identification algorithm designed for challenging Homeland Security issues
- Remote cameras control option
- With or without occupancy signal

FUNCTIONS

- 0.5 sec continuous elementary spectra acquisition and sourceless stabilization
- Count rate and dose rate calculation, alert criteria monitoring
- Real-time identification per channel and group of channels
- Spectra accumulation during occupancy for preset time with resume capability
- Automated report per measurement including pictures (user comments can be included)
- Sliding spectra analysis between occupancies to monitor background and for vehicle profile analysis

Portal interface detailed results

Expert mode graphical user interface

PERFORMANCES

- Isotope list:
  according to ANSI N42-38, IEC and IAEA standards Industrial, SNM, Medical and NORM radionuclides
- Gamma detection and identification capability:
- according to configuration, designed to exceed ANSI N42-38 (vehicle, static mode)
- surpassing performance: identifies 10 µCi 137Cs shielded with 3 cm (1.1 in) iron (ANSI requirement: 85 µCi)
- includes special processing for shielded or masked isotopes for example SNM masked by medicals or NORMs
- Neutron detection capability:
- according to configuration, designed to exceed ANSI N42-38 / IAEA recommendation

COMMUNICATION

- Ethernet (network) connectivity
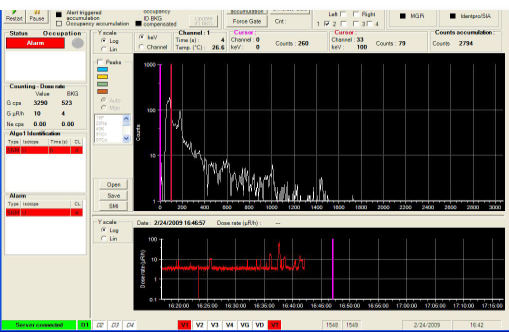
DIMENSIONS (PER PILLAR)

- Body: 148 cm x 50,2 cm x 22,2 cm (57 in x 19,73 in x 8,74 in)
- Base: Ø 32 cm (12.6 in)
- Weight: 62 kg (137lb)

Vehicle Portal graphical user interface