

## **Next Level in Radiation Detection**

- Industry leading technology
- Fast reacting alarm response with isotopic identification
- Utilizes gamma spectra energy deconvolution technique
- State of the art large volume, high resolution Thallium Doped Sodium Iodide crystal (Nal(TI)) scintillation detectors
- Standalone technology or can be added onto existing PVT based systems
- Flexible installation allowing for use in a variety of applications and industrial settings
- Stabilization without a radioactive checksource
- Neutron detection capability (Optional)

# NEUSPEC

## SPECTROSCOPIC RADIATION DETECTION SYSTEMS

NEUSPEC utilizes gamma spectra energy deconvolution techniques, which is a significant improvement over conventional PVT scintillator based systems. The NEUSPEC Spectroscopic technology is specifically designed to enhance a radiation detection systems ability to recognize specific Gamma energies which can adversely affect alarm thresholds. NEUSPEC utilizes of series of advanced isotopic identification algorithms in conjunction with RadComm's industry-leading and proven Region Of Interest (R.O.I.) analyses to provide best in class detection and identification capability.

NEUSPEC incorporates large Sodium Iodide Thallium Doped crystals (NaI(TI)) specifically selected for high resolution signal response. The crystals are protected inside a stainless steel case with a low density aluminum door. To ensure the best possible spectral analyses, the sodium iodide crystals must be continuously stabilized. NEUSPEC stabilizes these crystals with specific Gamma energies associated with the ambient background energies, thus eliminating the need for a supplied radioactive source(s).

Recommended for Vehicle/Portal, Conveyor, Charge Bucket, Off-Gas, Slab/Billet ,Consteel System, Grapple, Magnet and other critical monitoring applications.

#### RC5000

• 1-2 panel Spectroscopic Radiation Detection System

#### RC7000

- Multi-panel Spectroscopic Radiation Detection System
- Flexible design allows for both PVT & Nal(TI) scintillator detectors







#### NEUSPEC consists of:

- Detector assemblies
- RadLink embedded controller
- Smart Infrared presence sensors
- Large touch screen monitor
- Remote communications package (Optional)

## **RadLink Controller Features**

- Large touch screen LCD monitor
- Large storage capacity for system operational information and alarms
- Easy to follow multilingual menu outlines and descriptions
- Multi-level security password control
- Detail alarm and scan data storage
- Easy to set alarm configuration menu
- Network access for remote service and monitoring
- Radiation levels displaying in either: CPS, R/h, Sv/h
- Vehicle speed measurement in Km/h or mph
- Internal operating temperature displayed in Celsius and Fahrenheit
- Adjustable audio alarm
- Counter for number of scans in a 24 hour period for incoming and outgoing scans
- Detailed alarm information displayed and stored after every alarm
- Configurable email reporting
- Various string outputs available

#### **Detector Features**

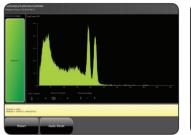
- Detector Case: 36"H(915cm)x 24"L(60cm)x 6"W(15cm)
- Outer Detector Case: Painted Aluminum
- Nema 4 (IP65) Rated
- Integral PMTs with EM Shielding
- High Speed DSP Circuitry with High SNR
- Ultra Stable High Voltage Software Adjustable
- Temperature Sensor
- Internal operating temperature: -20 °C (68 °F) +55 °C (131 °F)
- Relative Humidity: 93% non-condensing at 40 °C (104 °F)
- Vibration: 2 g for 15 min at 10 33 Hz in XYZ directions (ANSI N42.34, ANSI N42.38)
- Shock: Complies with ANSI N42.34, ANSI N42.38
- EM Compatibility: ANSI N42.34, ANSI 42.38 compliant
- CE compliant (EU safety, RFI and EMI directives)

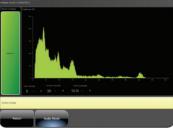
## **Spectrometer Specifications**

- Nal(Tl) Crystal Variety of sizes available
- Energy Resolution 8.0% or better for of 662 KeV
- Energy Range: 20 KeV to 3.0 MeV (Gamma)
- System Calibration Software Monitor with Operator Alert
- Dose Rate Range 1nSv/h to 1.0mSv/h Auto-Ranging
- Gamma Spectrum 512 Channels, channel capacity 16 bits
- Correction non-linear energy calibration
- Detection Specification: Meets ANSI N42.38 (2006)

### **Options:**

- Camera
- External alarms
- Supervisory Software
- Neutron Detection

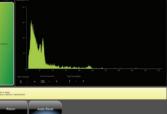




Cobalt-60 Spectra



Thorium-232 Spectra



Cesium-137 Spectra



## Leading Supplier of Innovative Radiation Detection Systems



## Supplied and supported in the UK by

