

Spartan Portal & Spartan Gate Systems

SPECTROMETRIC RADIATION MONITORING SYSTEMS

Portal detection solutions designed for:

- Fixed and mobile use
- Indoor and outdoor application
- Security applications requiring very high sensitivity to Detect and Identify all types of radionuclides

Spartan systems are advanced spectrometric portal monitors designed for different types of fixed and mobile applications which complement WB Johnson Instruments product family.

Spartan Portal and Spartan Gate high volume NaI(Tl) scintillation detector has rapid detection and identification capability in presence of radioactivity or radioactive material. Different solutions have been designed to be ideal for pedestrian, vehicle or cargo portal monitors.

KEY FEATURES

- Large volume NaI(Tl) gamma detector
- Neutron detection with high energy gamma radiation
- Neutron booster in fixed applications



- Indoor and outdoor solutions
- Fixed and mobile applications
- Flexible configuration: single or double sided and multiple detector portals for vehicle screening applications
- Automated operation with optional camera surveillance system
- Web server based Graphical User interface
- MySQL based spectrometric database

APPLICATIONS

- Airport and Railway Safety
- Customs and Border Control
- Passenger and Luggage Monitoring Systems
- Locating Orphan Sources
- Locating Suspicious Parcels
- Radiological Safety of Public Events
- Radiological Safety of Industrial Sites

Spartan Gate

- Designed for fixed indoor applications

- Integrated neutron booster that increases the detection sensitivity of neutrons
- Flexible configuration of the neutron booster: single or double sided detection direction
- Optional background radiation shield
- Web server based Graphical User interface
- MySQL based spectrometric database

Spartan Gate Industrial

- Designed for rough outdoor applications
- Extended temperature range with heating and cooling accessories
- Integrated neutron booster that increases the detection sensitivity of neutrons
- Flexible configuration of the neutron booster: single or double sided detection direction
- Possibility to create multi detector portals for e.g. cargo screening applications
- Uniform database and user interface features with Spartan Gate

Spartan Portal

- Designed for mobile use: car, boat, helicopter or airplane
- Easily deployable spectroscopy portal monitor
- Rugged detection and transport case



- Wireless connection capabilities using WLAN or optionally 3,5G
- Integrated GPS and mapping function
- Standard battery operating time more than 30h
- Compatible with vehicle power systems (9-36VDC)
- Uniform database and user interface features with Spartan Gate

EnviScreen Operix CBRN Monitoring System Software

- Operational system software with GPS mapping capabilities
- Complete reachback capabilities: Compatibility with Linssi-gamma-ray spectrometry database
- Possibility to include Chemical and Biological detection capabilities into same system
- Optional Integrated Mirasys video surveillance system synchronized with radiation measurement data for source tracking

Technical Data

Performance Specification

Gamma and Neutrons 4"x4"x16" NaI(Tl) detector

Resolution <8% at 662 keV

Humidity 0-95% non-condensing

Energy range 30 keV – 8MeV

MCA 2048 channels Maximum Count Rate >250k cps

Nuclide identification and categorization

- Designed to fulfill and exceed standard N42.34 ANSI Isotope list
- Medical, Industrial, SNM and NORM nuclide categorization
- Customizable user defined nuclides and ROIs

Functions

- Dose rate calculation
- Nuclide identification
- Spectrum analysis
- Comprehensive radionuclide database

Technical Specification

Enclosure	Spartan Gate	Spartan Portal	Spartan Gate Industrial
Dimensions (approx.)	57.4”L x 15.5”W x 14.7”H	37.6”L x 8.7”W x 8.7”H	53.3”L 25.6”W x 17.7”H
Weight Approx.	220.5 lb	88.1 lb	286.6 lb
Power	100-250 VAC 50-60Hz	100-250 VAC 50-60Hz	100-250 VAC 50-60 Hz
Battery	12V, 5Ah, Back-up battery	12V, 40Ah Battery for 24h operation	12V, 5Ah, Back-up battery
Temperature (Operating)	32°F to 122°F	-4°F to 122°F	-22°F to 122°F
Temperature (Storage)	-4°F to 122°F	-4 °F to 122 °F	-4°F to 122°F
Communication (Standard)	Ethernet, Wi-Fi (802.11 b/g/n)	Ethernet, 3.5G, Wi-Fi (802.11 b/g/n)	Ethernet Wi-Fi (802.11 b/g/n)
GPS	Optional	Build-in sensor	Optional
Neutron Moderator	Built-in	N/A	Built-in
Dust & Water Resistance	Indoor use	IP65	IP55