

P-RPM-IDn

Pedestrian Radiation Portal Monitor

Detects radiological threats to protect airports, government buildings and other critical infrastructure



Advanced
Pedestrian
Screening,
Swiss Design

The Arktis P-RPM-IDn enables reliable and discreet screening of pedestrians and their luggage for radiological threats. Real-time spectroscopic analysis of the alarms enables high throughput, does not infringe on personal privacy, and has minimal impact on daily operations. The system's modular open architecture is the right solution for fixed installed indoor detection scenarios.

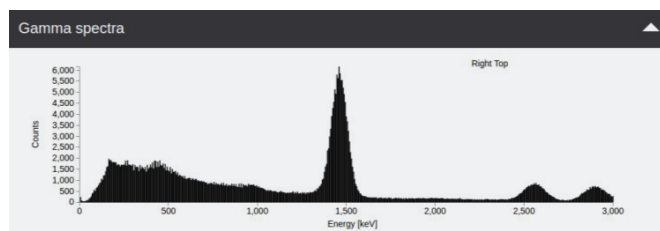
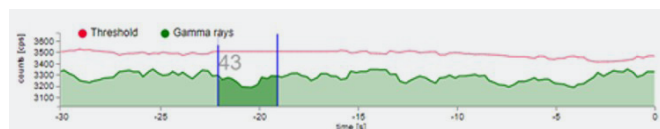
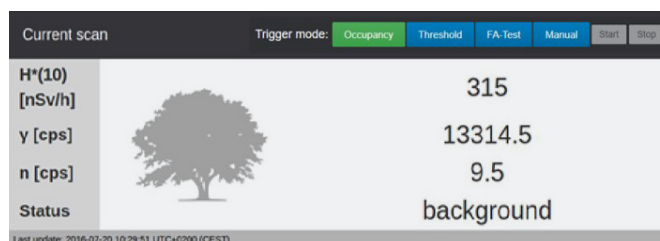
Key features

- Spectroscopic isotope identification
- NORM/Medical rejection
- User friendly Graphical User Interface (GUI)
- Browser based: runs on any operating system (desktops, laptops, tablets, smartphones)
- Based on Arktis' digital detection technology
- Solid state 6LiF-based neutron detection
- Real time automatic data transfer to network and central alarm station
- Real time, multiple RPM management
- Elegant design

P-RPM-IDn Personnel Monitor

Arktis P-RPM-ID is an indoor RPM to detect radiological threats transported by pedestrians. The system allows detection at high throughput with remote operation. Ideal deployment location include building entrances, in front of security screening lines, at customs clearance, or at boarding gates.

- Fully autonomous, the internal CPU performs real time ambient spectrum acquisition utilizing natural radiation signature for calibration and stabilization.
- The acquired ambient radiation data is used for real time dose calculation and tuning of the alarm parameters when no gate occupancy is detected.
- The spectra acquired during an occupancy are compared with a wide library spectra, evaluating potential threats even in case of multiple radiation sources (masking) or concealment attempts (shielding).
- The browser-based user interface doesn't require a specific operating system or screen size.



Specifications	
Gamma Detectors	2-liter (10 x 40 x 5 cm ³), Sodium Iodide NaI(Tl) based detectors with integrated MCA (fast multichannel analyzer). Energy range from 30 keV to 3000 keV.
Neutron Detectors	Arktis M800 neutron detector based on natural helium and ⁶ LiF. Uses solid state Silicon Photomultiplier (SiPM) technology rather than obsolete high voltage discharge methods.
Minimum Detectable Activity	The system detects a wide range of radioactive sources, including: Industrial sources ²⁴¹ Am (1.74 MBq) ⁶⁰ Co (259 kBq) ¹³⁷ Cs (592 kBq) Medical sources ¹³¹ I (851 kBq) ^{99m} Tc (4.7 MBq) ²⁰¹ Tl (3.26 MBq) Natural Occurring Radioactive Materials ²²⁶ Ra (296 kBq) ²³² Th (518 kBq) ⁴⁰ K (4.74 MBq) Nuclear Materials DU (2.5 kg); HEU (237 g); WGPu (15 g); ²⁵² Cf (20'000 n/s)
Connectivity	<ul style="list-style-type: none"> ■ Ethernet ■ WI-FI (optional) ■ 4G (Optional. SIM card not provided.)
Dimensions	height: 167 cm / width: 70 cm / depth: 25 cm
Operating temperature	Indoor operation at temperatures from 0°C to 40°C
Power Supply	120 V- 240 V / 50 Hz or 60 Hz
Data Output	Provides: gate occupancy; alarm spectroscopic information and plots; alarm status, gamma dose and count rate plots; neutron count rates; camera images; the portal can be managed locally or remotely in real time.
Peripherals	LIDAR occupancy sensor; color cameras controlled by the GUI; UPS capable of powering the system for 4 hours (optional); software for centralized data supervision workspace (optional).