# GUARDIAN™ 50L

**DATASHEET**

Rapiscan®

**RADIATION PORTAL MONITOR**

## KEY FEATURES AND BENEFITS

- High sensitivity gamma detection
- Notifications reported directly to the on-site operator for rapid response to alerts
- Easy-to-use, built-in user interface, running on major browsers
- Convenient wireless communication via smartphone, tablet, or laptop



Guardian 50L radiation detection portals offer cutting-edge passive scanning technology to detect gamma radiation sources concealed in materials and common objects in scrap yard and waste management operations.

Trusted worldwide to detect and locate radioactive sources, Guardian 50L portals are a cost-effective means to monitor passenger vehicles and trucks. The systems are highly accurate, providing maximum sensitivity, with a rugged design to operate in harsh environments.

The Guardian 50L is easy to use, and initial setup is accomplished with just a few clicks of the mouse. Day-to-day operations are monitored via a built-in user interface that runs on all major browsers. Communication is wireless and works with smartphones, tablets, and laptops.

# SPECIFICATIONS

## GUARDIAN™ 50L

### PHYSICAL SPECIFICATIONS

- **Application:** Drive-through monitor
- **Operating Configuration:** 1 left, 1 right
- **Number of Gamma Detectors:** 2 detectors; 1 per panel
- **Gamma Detector Volume:** 50 liters (total)
- **Gamma Detector Material:** Polyvinyltoluene (PVT) plastic scintillator
- **Gamma Detector Size:** 60 in L x 10 in W x 2.5 in D (152.4 cm L x 25.4 cm W x 6.4 cm D)
- **Standard Pillar Spacing:** 217 in (5.5 m)
- **Panel External Dimensions:** 80 in L x 40 in W x 11 in D (203 cm L x 102 cm W x 28 cm D)
- **Panel Weight:** 125 lbs (57 kg)

### PERFORMANCE SPECIFICATIONS

- **Gamma False Alarm Rate:** Less than 1 in 1,000 passages

### OPERATION

- **Inspection Speed:** 5 mph (8 km/h) (nominal)
- **Occupancy Sensors:** IR and Motion sensors
- **Gamma Radiation Alarms:** Red light
- **Tamper/Fault Alarm:** Amber light
- **Main Power:** 90–240 VAC, 50–60 Hz
- **Communication:** Ethernet, Wi-Fi

### ENVIRONMENT/SAFETY

- **Temperature:** -4 °F to 140 °F (-20 °C to 60 °C )
- **Humidity:** 5 to 95% non-condensing
- **Environmental Protection:** IP65

### STANDARD FEATURES

- 1500 in³ per detector
- Sensitivity as low as 0.08 uR/hr
- Fully digital system design
- Superior signal to noise ratio
- Advanced analysis algorithms for high sensitivity results with minimal nuisance alarms
- Mulitple alarm notification methods
- Real-time state of health reporting
- Modular system design for easy servicing

### OPTIONAL FEATURES

- Steel enclosure, surrounding 5 sides of the panel
- Guardian 501: Handheld radionuclide identification device supports secondary inspection—identifying and locating radiological threats

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