Rapiscan® systems
An OSI Systems Company

TSA VM250

VEHICLE RADIATION PORTAL MONITOR

DRIVE-THROUGH VEHICLE MONITOR

AUTOMATED INSPECTION OPERATION

GAMMA AND NEUTRON RADIATION DETECTION

PROVEN IN HUNDREDS OF DEPLOYMENTS WORLDWIDE

MARKETS

- Aviation
- Critical Infrastructure
- Customs and Border Control
- Defense
- Nuclear Facilities
- Ports

THE RAPISCAN TSA VM250 IS A PORTAL MONITOR FOR RADIATION INSPECTION OF VEHICLES.

It is designed to screen automobiles, vans, small and lightly loaded trucks. The TSA VM250 is ideal for screening vehicles at border crossings, seaports, airports, critical infrastructure and nuclear facilities. Vehicles are automatically inspected as they drive between the pillars of the monitor. The TSA VM250 is a standalone device with all the features and capabilities required for effective radiation inspection.

DESIGN

The two pillars of the TSA VM250 are separated by up to 5m. They house the radiation detectors and electronics, including the system controller and occupancy sensors. Operating parameters are easily input with the touchpad on the controller. A recharge-able backup battery supports 8 hours of operation if the main AC power fails. A light indicates a tamper or fault condition.

OPERATION

The TSA VM250 continuously measures the background radiation and signals background alarm conditions. When the occupancy sensors detect a vehicle approaching the monitor, it automatically switches to inspection mode. Radiation alarms are signaled with a flashing light and loud sound. The IP65 rating enables operation in a wide range of environments.

RADIATION DETECTION PERFORMANCE

The TSA VM250 is available with PVT gamma radiation detectors and optional B10 or He-3 neutron detectors. Radiation detection performance meets the requirements of ANSI N42.35 and IEC 62244. The TSA VM250 is designed to detect SNM, including HEU and Pu-239.

REMOTE OVERSIGHT

The TSA VM250 is compatible with Rapiscan remote oversight devices, which enable the radiation inspection operation to be overseen from a remote facility. The TSA AM270 local alarm box signals alarms in a nearby guard booth. The TSA RAVEN™ digital oversight system stores and displays inspection data and CCTV images obtained via a wired or wireless network.

TSA RAVEN™ (Radiation Alarm and Video Event Notification) communications software is used remotely to assist response personnel in the field to pinpoint radioactive sources. RAVEN can monitor multiple detectors and aid in managing individual detector activity.

sales@rapiscansystems.com
www.rapiscansystems.com

TSA VM250

Rapiscan systems
An OSI Systems Company

PHYSICAL SPECIFICATIONS

Operating Configuration	Drive-through vehicle monitor
Pillars	Master and slave pillar
Standard Pillar Spacing	16.4ft (5m)
Radiation Detectors	Four gamma radiation detectors (2/pillar)
Gamma Detector Material	Polyvinyltoluene (PVT) plastic scintillator
Gamma Detector Size	30in H x 6in W x 1.5in D (76.2cm x 15.2cm x 4cm)
Gamma Detector Volume	35.4 liters total detector volume
Pillar External Dimensions	120in H x 26in W x 8in D (305cm x 66cm x 20cm)
Pillar Weight	300 lbs (136kg)

PERFORMANCE SPECIFICATIONS

Gamma Radiation Detection	Meets ANSI N42.35 and IEC 62244
SNM Detection	1000g HEU or 10g Pu239
False Alarm Rate	Typically less than 1 in 1,000 passages

OPERATION

Inspection Mode	Drive through
Inspection Speed	5mph (8km/h) nominal
Occupancy Sensors	IR and radar sensors
Radiation Alarms	Flashing light and audible alarm
Tamper/Fault Alarm	Amber light
Main Power	90-240VAC, 50-60Hz
Backup Power	Rechargeable lead acid battery for 8 hr operation
Ports	RS232, Ethernet

OPERATING ENVIRONMENT

Temperature	--34°C to 50°C
Humidity	5 to 95% non-condensing
Environmental Protection	IIP65
Standards	CE

OPTIONS

Optional Gamma Detectors	Larger gamma detectors for higher sensitivity
Neutron Detectors	2 B10 detectors (1/pillar)
Optional Neutron Detectors	4 He^3 detectors (2/pillar)
Neutron Detection	Meets ANSI N42.35 and IEC 62244
SNM Detection	200g Pu239 shielded to less than 1% gamma flux
Alarm Characterization	Alarm classification or alarm identification
Pedestals	1m tall pillar pedestals
Interface Electrical Panel	Electrical panel for control of external devices
Remote Oversight	TSA AM270 local alarm box, TSA RAVEN™, RTDC
Remote Access	Serial Port

**For neutron detection please contact your sales representative to determine availabilty and quantity of He^3 tubes.*

**ASTM Standard C 1236 is available for purchase from The American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428 (610) 832-9585*

STANDARD FEATURES

- Gamma Radiation Detection

DEFINITIONS

- Gamma Detection - For the detection of ionizing radiation.
- Neutron Detection - Typically used to detect Special Nuclear Materials (SNM).
- Gamma and Neutron Detection - For full spectrum detection capabilities.

OPTIONS

- Neutron Radiation Detection
- Large Gamma Detectors
- Alarm Characterization
- Remote Oversight
- Serial port
- Pillar Pedestals

With continual development of our products Rapiscan Systems reserves the right to amend specifications without notice. Product pictures are for general reference. Please note that due to US laws and regulations, not all Rapiscan products are available for sale in all countries without restriction. Please contact your Rapiscan Systems sales representative for more information.

AMERICAS, CARIBBEAN
2805 Columbia Street
Torrance,
California
90503
UNITED STATES of AMERICA

Tel: +1 310-978-1457
Fax: +1 310-349-2491

EUROPE, MIDDLE EAST, AFRICA
X-Ray House
Bonehurst Road
Salfords
Surrey RH1 5GG
UNITED KINGDOM

Tel: +44 (0) 870-7774301
Fax: +44 (0) 870-7774302

ASIA
240 Macpherson Road
#07-01 Pines Industrial Building
Singapore
348574
SINGAPORE

Tel: +65-6846-3511
Fax: +65-6743-9915

Rapiscan Systems is ISO 9001:2008 Certified

sales@rapiscansystems.com
www.rapiscansystems.com