PM1401T Contraband Detector

Small hand-held contraband detector for search of concealed contraband items, such as explosives, drugs, guns etc., in the tires, walls and hollows. Recommended for use by Customs Officers, Border Patrol and Law Enforcement Agencies.

Features

Polimaster's PM1401T contraband detector is a light-weight portable device which can detect the presence of the hidden materials in the concealed areas.

The operation of the instrument is based on detecting of backscattered radiation from a built-in ^{133}Ba source while moving the PM1401T across the investigated object. The backscattered radiation is detected by a highly sensitive CsI scintillation detector.

The backscattering from the filled hollow space (such as contraband drug or guns in the car tires) reflects the gamma rays differently from non-filled space (such as air-filled tire) or solid material (such as piece of thick rubber). The PM1401T can easily detect the density changes and alert of the presence of contraband through visual, audible and vibration alarms.
In spite of the fact that the PM1401T has a built-in radioactive source, there is no danger to an operator. The source is properly shielded and gamma rays are emitted only in the direction of the inspected object.

PM1401T is also able to detect gamma radiation from radioactive and nuclear materials and can be used as an additional Personal Radiation Detector (PRD) at customs checkpoints for preventing illicit trafficking of the radioactive and nuclear materials.

Applications:

- Customs and Border Control

Specification

	PM1401T
Build-in radiation source	Ba133
Source activity, not more	1000 kBq
Dose equivalent rate	
on the PM1401T radioactive source shielding surface, no more	1 µSv/h
on the PM1401T handle surface, no more	0.2 µSv/h
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Scanning depth up to	30 cm
Detection capabilities	
When scanning with the speed no more than 5 cm/s, the PM1401T detects hidden bars: aluminium 30 x 30 x 30 mm polyethylene 70 x 70 x 20 mm steel 30 x 30 x 10 mm behind	1 mm steel partition or 15 mm wood partition
Dimensions	185 x 100 x 130 mm (7¼" x 4" x 5")
Weight up to	1400 g (49.4 oz)
Environmental Characteristics	
Temperature	-30 up to +50 °C (-22 up to +122 °F)
Humidity	up to 95% at 35°C (95°F)