



POLIMASTER®



Innovating Radiation Detection Technologies Since 1992

PERSONAL COMBINED RADIATION DETECTOR/DOSIMETER PM1703MO-1BT



PM1703MO-1BT combines functionality of both Personal Radiation Detector and Dosimeter in the one package.

The highly sensitive CsI(Tl) based detector ensures prompt gamma radiation detection and source location and together with GM tube detector enables precise dose rate measurement.

The instrument features wide dose rate measurement range and large LCD for better result readings.

Instrument may have additional registration modes of specific activity and surface activity of the ^{134}Cs , ^{137}Cs radionuclides in different liquids, food, bulk solids, soil, etc by the special order.

The stored operation history can be transferred from instrument's nonvolatile memory to a personal computer via infrared interface.

PM1703MO-1BT meets requirements of ITRAP/IAEA, IEC 60846, IEC 62401, ANSI N42.32 and ANSI N42.33 standards.

The range of the possible use applications varies from the health physics needs and the personnel acute dose monitoring to the security applications and area monitoring.

The small size of the unit can easily fit on the utility belt or on the vehicle dash board.

PM1703MO-1BT can exchange data with mobile devices via Bluetooth wireless connection.

The instrument can be equipped with the optional vehicle charger/mounting cradle for easy placing on the dash board.



ALARM

LOCATION

MEASUREMENT

Application

- First responders
- Customs and Border Patrol
- Police
- Emergency response teams
- Law enforcement
- HazMat teams
- Security guards

Features

- Easy to use, two-buttons operation
- Does not require any special knowledge or intensive training
- Two independent detectors: small-sized GM tube and highly sensitive CsI(Tl) scintillation detector
- Visual, audio and vibration alarms
- Special app POLISMART for Android mobile devices (free download is available from the Google Play)
- Non-volatile memory
- Shockproof hermetic case
- Low EMI interference from portable radio and cell phones



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SPECIFICATIONS

Detector - gamma search - gamma measurement	CsI(Tl) GM tube
Sensitivity - for ^{137}Cs , $\pm 20\%$ - for ^{241}Am , no less	85 (s⁻¹)/(μSv/h) (0.85 (s⁻¹)/(μR/h)) 100 (s⁻¹)/(μSv/h) (1.0 (s⁻¹)/(μR/h))
Energy range	0.033 - 3.0 MeV
Time of measurement	0.25 s
Dose Equivalent Range	0.01 μSv - 9.99 Sv (1 μR - 999 R)
Dose Equivalent Rate (DER) indication rage	0.01 μSv/h - 10 Sv/h (1 μR/h - 1000 R/h)
Accuracy of DER measurement, no more	$\pm(20+K_1/H+K_2)\%$ in measurement range 0.1 μSv/h - 10 Sv/h (10 μR/h - 1000 R/h), where H - dose rate value in mSv/h (mR/h) K₁ - coefficient 0.0025 mSv/h (0.25 mR/h) K₂ - coefficient 0.002 (mSv/h)⁻¹ (0.2 (mR/h)⁻¹)
Alarm type	visual, audio, vibration
Data recording	2000
Environmental protection	IP65
Drop test on concrete floor	1.5 m (4.9 ft) 0.7 m (2.3 ft) without cover
Power supply	one AA standard or rechargeable battery
Battery life time	up to 1000 hours up to 500 hours (for Bluetooth connection)
Operating temperature	-30°C to 50°C (-22°F to 122°F)
Size (without cover)	72 x 32 x 87 mm (2 13/16" x 1 1/4" x 3 7/16")
Weight, no more than	200 g. (7 oz.)
Low battery warning	LCD
Overload indication	OL

ITRAP/IAEA requirements, ANSI N42.32, ANSI N42.33 (1), ANSI N42.33 (2), IEC 60846, IEC 62401



Quality management system
ISO 9001

- Customer focus
- Customer satisfaction
- Continuous improvement
- System/process effectiveness

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