



# PERSONAL RADIATION DETECTORS PM1703M/PM1703GN GAMMA/GAMMA-NEUTRON PAGERS



First Introduced in the United States in 2002 and currently most widely used by US law enforcement agencies.

These are still highly efficient existing first responders' "pager type" radiation detection instruments.

For Law Enforcement, Homeland Security to prevent proliferation of nuclear materials and weapons.

The PM1703M/PM1703GN are the first in the world unique gamma/gamma-neutron PRDs of the new generation, which are capable to detect even very small amounts of radioactive and nuclear materials including nuclear weapons materials.

The PM1703M/PM1703GN are designed as an extremely effective instruments for prevention of inland illicit trafficking of radioactive materials and nuclear weapons by terrorist groups.



**ALARM**



**LOCATION**



**INDICATION**

**ISO 9001**

### Features

- Easy to use, two-buttons operation
- Doesn't require any special knowledge.
- Two independent scintillation detectors of CsI(Tl) and LiI(Eu)
- Audible and vibration alarms
- Non-volatile memory
- Shockproof hermetic case
- Low EMI interference from portable radio and cell phones

### Application

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

### Versions

- PM1703M - gamma
- PM1703GN - gamma-neutron



# PERSONAL RADIATION DETECTORS

## PM1703M/PM1703GN

### GAMMA/GAMMA-NEUTRON PAGERS

	PM1703M	PM1703GN
Detector - gamma - neutron	CsI(Tl) -	CsI(Tl) LiI(Eu)
Sensitivity - gamma for Cs-137, no less - neutron for Pu-a-Be, no less for thermal neutron, no less	100 cps/(mSv/h)	100 cps/( $\mu$ Sv/h)  0.05 counts cm <sup>2</sup> /n 1.3 counts cm <sup>2</sup> /n
Energy range - for gamma - for neutron	0.033 - 3 MeV	0.033 - 3 MeV 0.025 eV - 14 MeV
Time of measurement	0.25 s	
Range of n coefficient (number of mean square deviations of current background) Step	from 1 to 9.9 0.1	
Indication range of dose equivalent rate (DER)	0.01 - 70 mSv/h	
Accuracy of DER registration to Cs-137 in collimated radiation in the range from 0.1 up to 40 mSv/h	± 30 %	
Count time: - in background mode - in search mode	36 s 2 s	
PM1703M / PM1703GN meet requirements of ITRAP Program: detection with no less than 99% probability within 3s at background level of 0.2mSv/h and false alarm rate no more than 1 per 10 hours for Cs-137, Am-241, Co-60, with the dose rate	1 mSv/h	
Additional functions	PC communication mode	
Drop test on concrete floor	0.7 m	
Power supply	One AA battery (1.5 V)	
Battery lifetime	1 000 h	
Battery discharge warning	indication on LCD	
Operating conditions: - temperature range - relative humidity (at 30°C)	- 30 ... +50° C up to 98%	
Protection degree of case	IP65	
Dimensions	87 x 72 x 35 mm	
Weight (with battery), no more than	180 g	200 g

Design and specifications of the device can be changed without further notice.

