



Innovating Radiation Detection Technologies Since 1992

PERSONAL RADIATION DETECTORS

PM1401MA/PM1401GNA GAMMA/GAMMA-NEUTRON



These detectors are highly efficient first responders' "pocket type" radiation detection instruments.

For Professionals in Law Enforcement and Homeland Security.

PM1401MA/PM1401GNA meets requirements of ITRAP/IAEA, ANSI N42.32 standard.



PM1401MA/PM1401GNA are the most sensitive gamma/gamma-neutron monitors, which are capable to detect the smallest amounts of radioactive and nuclear materials including the weapon ones.

The use of the PM1401MA/PM1401GNA may prevent inland illicit trafficking of radioactive sources and prevent terrorist actions with radioactive and nuclear materials.

Application

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

Versions

- PM1401MA-gamma
- PM1401GNA-gamma-neutron
- Options: radionuclide identification using Bluetooth communication with external Pocket PC or smartphone with software PolIdentify™

Features

- Fast response
- Easy two-buttons operation
- Gamma dose rate indication with reference to background
- Neutron count rate indication with reference to the neutron background
- Non-volatile memory for Storage of operation history
- PC communication via IR interface
- Waterproof, shock-resistant aluminium case
- Small size and light weight
- Optional extension pole

ALARM

LOCATION

MEASUREMENT



IRDA



PERSONAL RADIATION DETECTORS PM1401MA/PM1401GNA GAMMA/GAMMA-NEUTRON SPECIFICATIONS

	PM1401MA	PM1401GNA
Detector - gamma - neutron	Cs(Ti) -	CsI(Tl) He-3 counter
Sensitivity: - gamma for ¹³⁷ Cs, no less - neutron for Pu-α-Be, no less - for thermal neutron, no less	100 cps/(μSv/h) - -	100 cps/(μSv/h) 0.1 counts cm² / n 1.0 counts cm² / n (with moderator) 7 counts cm² / n
Energy range - for gamma - for neutron	0.06 - 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	
Detection of gamma radiation sources (Ba-133) at a distance of 0.2 m, velocity of 0.5 m/s	55 kBq	
Detection of - standard sample Pu ²³⁹ - standard sample U ²³⁵ (at distance of 0.2 m, velocity of 0.5 m/s, background < 0.25 μSv/h)	0.3 g 10 g	
Measurement range of dose equivalent rate (DER) of photon radiation H*(10)	0.05 - 40 μSv/h	0.01 - 70 μSv/h
Accuracy of DER registration to ¹³⁷ Cs in collimated radiation	±(20 + 1/H)%, H - DER value in μSv/h	±30%
Count time: - in background mode - in search mode	36 s 2 s	
Meet requirements of ITRAP Program: detection with no less than 99% probability within 3 s for Cs-137, Am-241, Co-60, with the dose rate (at background < 0.2 μSv/h, false alarm < 1per 10 hour)	1 μSv/h	
Additional functions	PC communication mode	
Drop test on concrete floor	0.7 m	
Power supply	One AA battery	
Battery lifetime	1000 h	
Battery discharge warning	indication on LCD	
Operating conditions: - temperature range - relative humidity (at 35° C)	- 30 ... +50° C up to 98%	
Protection degree of case	IP65	
Dimensions	57 x 110 x 32 mm	57 x 183 x 34 mm
Weight	270 g	398 g

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

**ITRAP/IAEA,
ANSI N42.32, ANSI N42.33 (1)**

www.polimaster.com



www.polismart.com