


Spectroscopic Personal Radiation Detectors PM1401MB / GNB



	PM1401MB	PM1401GNB
Detector		
gamma	CsI(Tl)	CsI(Tl)
neutron	✘	He-3
Sensitivity		
for ¹³⁷ Cs, no less	100 (s ⁻¹)/(μSv/h) (1.0 (s ⁻¹)/(μR/h))	100 (s ⁻¹)/(μSv/h) (1.0 (s ⁻¹)/(μR/h))
for ²⁴¹ Am, no less	100 (s ⁻¹)/(μSv/h) (1.0 (s ⁻¹)/(μR/h))	200 (s ⁻¹)/(μSv/h) (2.0 (s ⁻¹)/(μR/h))
Energy range		
gamma	0.033 – 3.0 MeV	0.033 – 3.0 MeV
neutron		from thermal to 14.0 MeV
Dose Rate		
gamma	0.01 – 99.99 μSv/h (1 – 9999 μR/h)	0.01 – 99.99 μSv/h (1 – 9999 μR/h)
neutron	✘	1 - 999 s ⁻¹
Dose	✘	✘
Accuracy (at ¹³⁷Cs)	±30% (in range 0.1 – 70 μSv/h (10 – 7000 μR/h))	±30% (in range 0.1 – 70 μSv/h (10 – 7000 μR/h))

Response time	0.25 s	0.25 s
Radionuclide identification		
Special nuclear materials (SNM)	²³³ U, ²³⁵ U, ²³⁷ Np, Pu	²³³ U, ²³⁵ U, ²³⁷ Np, Pu
Medical radionuclides	¹⁸ F, ⁶⁷ Ga, ⁵¹ Cr, ⁷⁵ Se, ⁸⁹ Sr, ⁹⁹ Mo, ^{99m} Tc, ¹⁰³ Pd, ¹¹¹ In, ¹²³ I, ¹³¹ I, ¹⁵³ Sm, ²⁰¹ Tl, ¹³³ Xe	¹⁸ F, ⁶⁷ Ga, ⁵¹ Cr, ⁷⁵ Se, ⁸⁹ Sr, ⁹⁹ Mo, ^{99m} Tc, ¹⁰³ Pd, ¹¹¹ In, ¹²³ I, ¹³¹ I, ¹⁵³ Sm, ²⁰¹ Tl, ¹³³ Xe
Naturally occurring radioactive materials (NORM)	⁴⁰ K, ²²⁶ Ra, ²³² Th and daughters, ²³⁸ U and daughters	⁴⁰ K, ²²⁶ Ra, ²³² Th and daughters, ²³⁸ U and daughters
Industrial radionuclides	⁵⁷ Co, ⁶⁰ Co, ¹³³ Ba, ¹³⁷ Cs, ¹⁹² Ir, ²²⁶ Ra, ²⁴¹ Am	⁵⁷ Co, ⁶⁰ Co, ¹³³ Ba, ¹³⁷ Cs, ¹⁹² Ir, ²²⁶ Ra, ²⁴¹ Am
Standards compliance	ITRAP/IAEA requirements, ANSI N42.32, ANSI N42.33 (1), ANSI N42.34, IEC 62401	ITRAP/IAEA requirements, ANSI N42.32, ANSI N42.33 (1), ANSI N42.34, IEC 62401
Alarm type	visual, audio, vibration	visual, audio, vibration
Data recording	1000	1000
Environmental protection	IP65	IP65
Drop test on concrete floor	1.5 m (4.9 ft)	1.5 m (4.9 ft)
Power supply	one AA battery	one AA battery
Battery life time	up to 1000 hours	up to 800 hours
Operating temperature	-30°C to 50°C (-22°F to 122°F)	-30°C to 50°C (-22°F to 122°F)
Size (without cover)	103 x 57 x 32 mm (4" x 2¼" x 1¼")	194 x 57 x 32 mm (7 5/8" x 2¼" x 1¼")
Weight		
(without cover)	270 g (9.52 oz)	430 g (15.2 oz)
(with cover)		
Low battery warning	LCD	LCD
Overload indication		
gamma	OL	OL
neutron		999
PC Communication	IRDA, Bluetooth	IRDA, Bluetooth
Design and develop		