

PM1703M/MA/MB Personal Radiation Detectors

	PM1703M	PM1703MA	PM1703MB
Detector			
gamma	CsI(Tl)	CsI(Tl)	CsI(Tl)
neutron	✘	✘	✘
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))	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))	200 (s ⁻¹)/(μSv/h) (2.0 (s ⁻¹)/(μR/h))
Energy range			
gamma	0.033 – 3.0 MeV	0.033 – 3.0 MeV	0.033 – 3.0 MeV
neutron	✘	✘	✘
Dose Rate			
gamma	0.01 – 99.99 μSv/h (1 – 9999 μR/h)	0.01 – 99.99 μSv/h (1 – 9999 μR/h)	0.01 – 99.99 μSv/h (1 – 9999 μR/h)
neutron	✘	✘	✘
Dose	✘	✘	✘
Accuracy	±30% (in range 0.1 – 70 μSv/h (10 – 7000 μR/h)) (at ¹³⁷ Cs)	±30% (in range 0.1 – 70 μSv/h (10 – 7000 μR/h)) (at ¹³⁷ Cs)	±30% (in range 0.1 – 70 μSv/h (10 – 7000 μR/h)) (at ¹³⁷ Cs)
Response time	0.25 s	0.25 s	0.25 s
Radionuclide identification using Bluetooth communication with external Pocket PC or smartphone			
Special nuclear materials (SNM)	✘	✘	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
Naturally occurring radioactive materials (NORM)	✘	✘	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
Standards compliance	ITRAP/IAEA requirements, ANSI N42.32, ANSI N42.33(1), IEC 62401	ITRAP/IAEA requirements, ANSI N42.32, ANSI N42.33(1), 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	visual, audio, vibration
Data recording	1000	1000	1000
Environmental protection	IP65	IP65	IP65
Drop test on concrete floor	1.5 m (4.9 ft) 0.7 m (2.3 ft) without cover	1.5 m (4.9 ft) 0.7 m (2.3 ft) without cover	1.5 m (4.9 ft) 0.7 m (2.3 ft) without cover
Power supply	one AA battery	one AA battery	one AA battery
Battery life time	up to 1000 hours	up to 1000 hours	up to 1000 hours
Operating temperature	-30°C to 50°C (-22°F to 122°F)	-30°C to 50°C (-22°F to 122°F)	-30°C to 50°C (-22°F to 122°F)

Size (without cover)	87 x 72 x 40 mm (3 3/8" x 2 7/8" x 1 5/8")	72 x 32 x 87 mm (2 7/8" x 1 1/4" x 3 3/8")	75 x 35 x 98 mm (3" x 1 3/8" x 3 7/8")
Weight			
(without cover)	180 g (6.35 oz)	180 g (6.35 oz)	200 g (7.05 oz)
(with cover)	220g (7.75 oz)	220g (7.75 oz)	240 g (8.5 oz)
Low battery warning	LCD	LCD	LCD
Overload indication			
gamma	OL	OL	OL
neutron	✘	✘	✘
PC Communication	IRDA	IRDA	