Gamma Scintillation Probes

Scintillation probes exhibit greater sensitivity than Geiger-Mueller probes. The ability to detect a radiation source from a greater distance makes them useful for searching for misplaced radioactive sources.

Model	44-3	44-17	44-2	44-10
Application	I-125, low energy gamma		High energy gamma	
Energy Range	10 - 60 keV	10 - 200 keV	60 keV and above	
Energy Response	Energy dependent			
Compatible instruments	General purpose survey meters, ratemeters and scalers			
Crystal dimensions	1 in (2.5 cm) diameter, 1 mm thick NaI (Tl)	1 in (2.5 cm) diameter, 2 mm thick NaI (Tl)	1 in (2.5 cm) diameter, 1 in (2.5 cm) thick NaI (Tl)	2 in (5.1 cm) diameter, 2 in (5.1 cm) thick NaI (Tl)
Entry Window	15 mg/cm^3	43 mg/cm^3	N/A	
Window area	5 cm^2 active and open	17.8 cm^2 active and open	N/A	
Typical sensitivity	675 cpm/µR/h (I^{125})	N/A	175 cpm/µR/h (Cs^{137})	900 cpm/µR/h (Cs^{137})
Background (10 µR/h)	Typically 400 cpm	Typically 1400cpm	N/A	
Efficiency (4π)	19% - I^{125}	20% - I^{125}	N/A	
Photomultiplier Tube	1.5 in (3.8 cm) diameter magnetically shielded	2 in (5.1 cm) diameter magnetically shielded	1.5 in (3.8 cm) diameter magnetically shielded	2 in (5.1 cm) diameter magnetically shielded
Operating voltage	500 - 1200 volts			
Dynode string resistance	100 megohm	60 megohm	100 megohm	60 megohm
Dimensions	2 in (5.1 cm) diameter, 7 in (17.8 cm) long	2.6 in (6.7 cm) diameter, 9 in (22.9 cm) long	2 in (5.1 cm) diameter, 7 in (17.8 cm) long	2.6 in (6.7 cm) diameter, 9 in (22.9 cm) long
Weight	1 lbs (0.45 kg)	1.5 lbs (0.7 kg)	1 lbs (0.45 kg)	1.5 lbs (0.7 kg)
Connector	Specify connector to match the instrument			

Model 44-3 is also available with a 7.8 mg/cm^2 window for energies as low as 5 keV.

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