IUDLUM MEASUREMENTS, INC.

Model 44-88 Alpha-Beta-Gamma Detector



Introduction

The Model 44-88 GM (Geiger-Mueller) detector responds to alpha, beta, and gamma radiation. It energy-dependent, overresponding by a factor of 6 in the 60 keV to 100 keV range when normalized to ¹³⁷Cs. The GM tube is user-accessible for repair should it be required. The Model 44-88 detector will operate with any of the Ludlum Measurement instruments that provide 900 V and an input sensitivity of approximately 30 mV or higher.

Specifications

Part Number: 47-2356

INDICATED USE: alpha, beta, gamma survey; sample counting DETECTOR TYPE: pancake-type, halogen-quenched GM WINDOW: 1.7 + 0.3 mg/cm² mica WINDOW AREA: 15 cm² (2.3 in²) active; 12 cm² (1.9 in²) open EFFICIENCY (4π): ¹⁴C - 5%; ⁹⁰Sr/⁹⁰Y - 22%; ⁹⁹Tc - 19%; ³²P - 32%; ²³⁹Pu - 15% SENSITIVITY (¹³⁷Cs gamma): 3300 cpm/mR/hr ENERGY RESPONSE: energy dependent BACKGROUND: 60 cpm DEAD TIME: typically 80 microseconds OPERATING VOLTAGE: 900 volts CONSTRUCTION: aluminum housing, beige powder-coat, with 79% open stainless steel screen SIZE: 5.9 x 7 cm (2.3 x 2.8 in.) (Dia x L) WEIGHT: 0.2 kg (0.5 lb)

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