

Model 43-92

Alpha Scintillator



The Model 43-92 alpha scintillation detector is designed for alpha contamination surveys. An alpha scintillator, zinc sulfide [ZnS (Ag)], is applied to the window backup, which is covered by metalized Mylar to reduce light response (causing excessive background counts). An 88% open, square-hole screen protects the window.

The Model 43-92 is compatible with any LMI general-purpose survey meter, ratemeter or scaler.

SPECIFICATIONS:

INDICATED USE: alpha survey SCINTILLATOR: ZnS(Ag) EFFICIENCY (4π): 20%–²³⁹Pu WINDOW: 0.8 mg/cm² aluminized Mylar (1.2 mg/cm² recommended for outdoor use) REMOVABLE PROTECTIVE SCREEN: 0.79 mm (0.03 in.) thick, 6.5 mm (0.26 in.) square openings, 88% open SCREEN OUTER DIMENSIONS: 167.6 x 92.2 mm (6.6 x 3.6 in.) (L x W) WINDOW AREA: Open: 88 cm² (13.6 in²) Active: 100 cm² (15.5 in²) PROTECTIVE SCREEN: 0.030 (0.25 in.) thick stainless steel square-hole, 88% open NON-UNIFORMITY: less than 10% BACKGROUND: 3 cpm or less PHOTOMULTIPLIER TUBE: 2.9 cm (1.13 in.) diameter OPERATING VOLTAGE: typically 500–1200 volts (1500 volts maximum) CONSTRUCTION: aluminum with beige powder coating TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 ° F) CONNECTOR: series “C”, unless specified otherwise SIZE: 6.4 x 9.5 x 31.2 cm (2.5 x 3.8 x 12.3 in. (H x W x L) WEIGHT: 0.5 kg (1.0 lb)

Optional Protective Screens

Model L-7393-209: 0.79 mm (0.031 in.) thick, 4 mm (0.16 in.) square openings, 81% open Model L-7393-208: 0.79 mm (0.031 in.) thick, 4.8 mm (0.19 in.) hex openings, 83.5% open Model L-7393-138: 0.51 mm (0.020 in.) thick, 6.5 mm (0.26 in.) square openings, 88% open