

Model 44-10 Gamma Detector



Specifications

Part Number: 47-1540

INDICATED USE: low-level, wide-energy gamma detection

SUGGESTED INSTRUMENTS: general purpose survey meters, ratemeters, and scalars

DETECTOR TYPE: 5.1 x 5.1 cm (2 x 2 in.) (Dia x L) NaI scintillator

EFFICIENCY: ¹²⁵I for 4%; ⁵⁷Co for 20%; ¹³⁷Cs for 9%; ⁶⁰Co for 15%

SENSITIVITY: typically 900 cpm/ μ R/hr (¹³⁷Cs gamma)

RECOMMENDED ENERGY RANGE: 30 keV – 3.0 MeV

ENERGY RESPONSE: energy dependent

BACKGROUND: 9750 cpm (in 10 μ R/hr field)

PHOTOMULTIPLIER TUBE: 5.1 cm (2 in.) diameter, magnetically shielded

OPERATING VOLTAGE: 500 to 1200 volts

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F), may be certified to operate from -40 to 65 °C (-40 to 150 °F)

ENVIRONMENTAL RATING: IP65

CONNECTOR: series "C" (others available)

CONSTRUCTION: aluminum housing with beige powder coat

SIZE: 6.6 x 27.9 cm (2.6 x 11 in.) (Dia x L)

WEIGHT: 1.0 kg (2.3 lb)

Options

Sample Holders: Model 180-7 and Model 180-9 sample holders provide repeatable geometry for counting wipes, filter paper, or slides at user-selectable spacings of 0.32, 0.64, 1.3, 2.5, and 5.1 cm (0.125, 0.25, 0.5, 1, and 2 in.) from the detector.

Model 180-7: anodized aluminum frame, sample tray, and collimator (P/N 47-1582)

Model 180-9: has 3.81 cm (1.5 in.) thick lead housing with beige powder coat (P/N 47-1591)

Collimator: 7.9 x 6.6 cm (3.125 x 2.6 in.) (Dia x L), 0.56 cm (0.22 in.) thickness (P/N 4260-076)

Collimator: 7.9 x 15.2 cm (3.125 x 6 in.) (Dia x L), 0.56 cm (0.22 in.) thickness (P/N 4260-079)

Planchets: 5.1 cm x 3.2 mm (2.0 x 0.125 in.) (Dia x thickness) in stainless steel or aluminum, minimum order quantity of 500
Stainless Steel (P/N 7525-371-01); Aluminum (P/N 7525-371)