

## Model 44-2 Gamma Detector



(Two views shown of Model 44-2)

### Specifications

Part Number: 47-1532

**INDICATED USE:** low-level, wide-energy gamma survey

**DETECTOR TYPE:** scintillator, 2.5 x 2.5 cm (1 x 1 in.) (Dia x thickness)

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

**EFFICIENCY:**  $^{125}\text{I}$  for 7%;  $^{57}\text{Co}$  for 10%;  $^{137}\text{Cs}$  for 3%;  $^{60}\text{Co}$  for 3%

**SENSITIVITY:** typically 175 cpm/ $\mu\text{R/hr}$  ( $^{137}\text{Cs}$  gamma)

**RECOMMENDED ENERGY RANGE:** 20 keV – 1.5 MeV

**EXPOSURE ENERGY RESPONSE (gamma):** energy dependent

**H\*(10) AMBIENT DOSE EQUIVALENT ENERGY RESPONSE:** energy dependent

**BACKGROUND:** 1800 cpm (in 10  $\mu\text{R/hr}$  field)

**PHOTOMULTIPLIER TUBE:** 2.9 cm (1.1 in.) diameter, magnetically shielded

**OPERATING VOLTAGE:** typically 500 to 1200 V

**TEMPERATURE RANGE:** -15 to 50 °C (5 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 finish

**SIZE:** 5.1 X 21 cm (2 x 8.25 in.) (Dia x L)

**WEIGHT:** 0.5 kg (1 lb)

### Options

**Sample Holders:** Model 180-1, Model 180-1L, and Model 180-24 sample holders provide repeatable geometry for counting wipes, filter paper, or slides at user-selectable spacing 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 180-1:** anodized aluminum frame, sample tray, and collimator (P/N 47-1675)

**Model 180-1L:** as above, but with 0.64 cm (0.25 in.) painted lead collimator (P/N 47-2988)

**Model 180-24:** anodized aluminum frame and sample tray (no collimator) (P/N 47-2631)

**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)

**Collimator:** lead shielding/collimator for 5.1 cm (2 in.) OD detectors (P/N 4002-227)