

Model 44-7

Alpha Beta Gamma Detector

Radiation Detection for a Safer World



Ludlum Measurements, Inc.



Part Number: 47-1536

Specifications

INDICATED USE: alpha, beta, gamma survey; sample counting

DETECTOR TYPE: end window, halogen-quenched GM

WINDOW: 1.7 ± 0.3 mg/cm² mica

WINDOW AREA: 6 cm² (0.93 in²) active; 5 cm² (0.78 in²) open

EFFICIENCY (4 π): 2% for ¹⁴C; 10% for ⁹⁰Sr/⁹⁰Y; 7% for ⁹⁹Tc; 7% for ²³⁹Pu; 0.1% for ¹²⁵I

SENSITIVITY (¹³⁷Cs gamma): typically 2100 cpm/mR/hr

ENERGY RESPONSE: energy dependent

BACKGROUND: 40 cpm

DEAD TIME: typically 200 microseconds

OPERATING VOLTAGE: 900 volts

CONNECTOR: series "C" (others available)

TEMPERATURE RANGE: -15 to 50 °C (5 to 122 °F); may be certified to operate from -40 to 65 °C (-40 to 150 °F)

CONSTRUCTION: anodized aluminum housing

SIZE: 4.6 x 14.7 cm (1.8 x 5.8 in.) (Dia x L)

WEIGHT: 0.5 kg (1 lb)

Available Option

Model 180-4 Sample Holder provides repeatable geometry for counting wipes, filter paper, or slides. The sample may be placed in any one of five distances from detector to sample: 0.32 cm (0.125 in.), 0.64 cm (0.25 in.), 1.3 cm (0.5 in.), 2.5 cm (1 in.), and 5.1 cm (2 in.). Anodized aluminum frame and sample tray. Model 180-4 (Part Number 47-1667)

Sample Planchets: 5.1 cm (2 in.) diameter sample planchets are available in minimum quantities of 500 from Ludlum Measurements. The planchets are manufactured in either aluminum (Model L-7525-371) or stainless steel (Model L-7525-371-01).