

Model 43-2

Alpha Detector



Ludlum Measurements, Inc.



Two views of same detector to show the end window and the color-coded label indicating use (alpha).

Specifications

Part Number: 47-1517

INDICATED USE: alpha survey

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

CONNECTOR: series "C" (others available)

SCINTILLATOR: ZnS(Ag)

EFFICIENCY (4π): 30% for ^{239}Pu ; 30% for ^{230}Th

WINDOW: two layers of 0.8 mg/cm² aluminized polyester

WINDOW AREA: 9.7 cm² (1.5 in²) active and open

BACKGROUND: 3 cpm or less

DETECTOR UNIFORMITY: within 10% of average reading

TUBE: 3.8 cm (1.5 in.) diameter magnetically shielded photomultiplier

OPERATING VOLTAGE: typically 500–1200 Vdc

CONSTRUCTION: aluminum housing with beige powder coat

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F)

SIZE: 4.8 x 18.4 cm (1.9 x 7.3 in.) (Dia x L)

WEIGHT: 0.3 kg (0.6 lb)



Options:

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 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 180-1: 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

- Stainless Steel (P/N 7525-371-01);
- Aluminum (P/N 7525-371) Minimum order quantity of 500

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Note: specifications subject to change without notification. We are not responsible for errors or omissions.

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