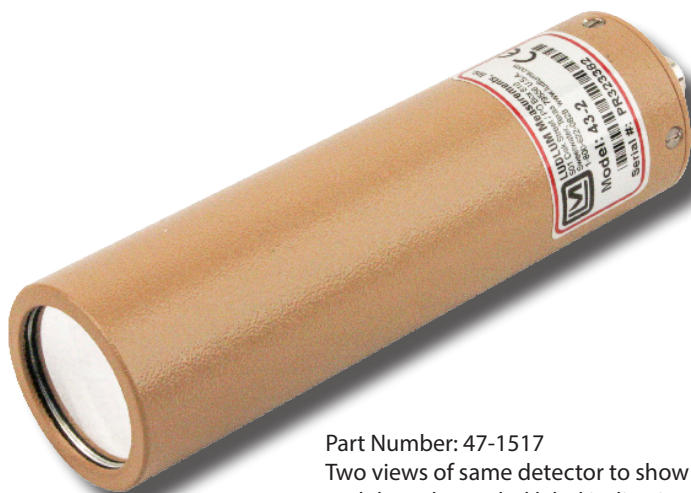


# Model 43-2 Alpha Detector



Ludlum Measurements, Inc.



Part Number: 47-1517  
Two views of same detector to show the end window  
and the color-coded label indicating use (alpha).

## Specifications

**INDICATED USE:** alpha survey

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

**CONNECTOR:** series "C" (others available)

**SCINTILLATOR:** ZnS(Ag)

**EFFICIENCY (4 $\pi$ ):** 30% for <sup>239</sup>Pu; 30% for <sup>230</sup>Th

**WINDOW:** two layers of 0.8 mg/cm<sup>2</sup> aluminized polyester

**WINDOW AREA:** 9.7 cm<sup>2</sup> (1.5 in<sup>2</sup>) active and open

**BACKGROUND:** 3 cpm or less

**NON-UNIFORMITY:** less than 10%

**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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