

# Model 43-1 Alpha Detector



Ludlum Measurements, Inc.



Part Number: 47-1516

Two views to show the large window and the yellow to indicate the radiation type detected - in this case, yellow for alpha.

The Ludlum Model 43-1 is a large area scintillation detector for alpha radiation survey and wipe test analysis.

## Specifications

**INDICATED USE:** alpha survey

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

**DETECTOR TYPE:** scintillator, ZnS (Ag)

**PHOTOMULTIPLIER TUBE:** 3.8 cm (1.5 in.) diameter, magnetically shielded

**DETECTOR OPERATING VOLTAGE:** typically 500 to 1200 volts

**WINDOW:** 1.2 mg/cm<sup>2</sup> metalized polyester (1.3 mg/cm<sup>2</sup> recommended for outdoor use)

**WINDOW AREA:** 83 cm<sup>2</sup> active; 75 cm<sup>2</sup> open

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

**EFFICIENCY (4 $\pi$ ):** ALPHA: 33% for <sup>239</sup>Pu

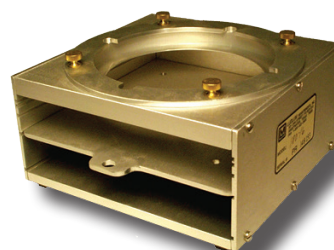
**BACKGROUND:** 3 cpm or less

**CONNECTOR:** series "C", others available

**CONSTRUCTION:** aluminum housing with beige powder coat

**SIZE:** 12.2 x 24.9 cm (4.8 x 9.8 in.) (Dia x L)

**WEIGHT:** 0.9 kg (2 lb)



Model 180-16 Wide Diameter Sample Holder

**Option:** Model 180-16 Wide Diameter Sample Holder provides repeatable geometry for counting wipes, filter paper, or slides, up to 10.2 cm (4 in.) diameter. Sample trap offers selectable spacings of 0.32, 0.64, 1.3, 2.5, and 5.1 cm (0.125, 0.25, 0.5, 1.0, and 2 in.) Part Number 47-1132

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556

Web: <http://www.ludlums.com> Tel: 800-622-0828 / 325-235-5494 / Fax: 325-235-4672 / Email: [ludlum@ludlums.com](mailto:ludlum@ludlums.com)

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

July 2016