

# Model 44-40-2

## Alpha Beta Gamma Detector



Ludlum Measurements, Inc.



Comparison of Model 44-40 and Model 44-40-2 (see below)

### Specifications

Part Number: 47-2758

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

**DETECTOR:** pancake-type, halogen quenched GM

**WINDOW:**  $1.7 \pm 0.3$  mg/cm<sup>2</sup> mica

**WINDOW AREA:** 15.51 cm<sup>2</sup> (2.4 in<sup>2</sup>) active, 12.26 cm<sup>2</sup> (1.9 in<sup>2</sup>) open

**PROTECTIVE SCREEN:** stainless steel, 79% open

**EFFICIENCY (4 $\pi$ ) (approximate):** 5% for <sup>14</sup>C; 22% for <sup>90</sup>Sr/<sup>90</sup>Y; 19% for <sup>99</sup>Tc; 32% for <sup>32</sup>P; 15% for <sup>239</sup>Pu

**SENSITIVITY (<sup>137</sup>Cs gamma):** typically 3300 cpm/mR/hr

**BACKGROUND:** 25 cpm

**GAMMA FRONT TO BACK RATIO:** 4 to 1

**LEAD SHIELD THICKNESS:** 1.3 cm (0.50 in.) on side; 3.6 cm (1.4 in.) on back

**DEAD TIME:** 80 microseconds

**ENERGY RESPONSE:** energy dependent

**OPERATING VOLTAGE:** 850 to 1000 V (nominally 900 volts)

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

**CONSTRUCTION:** painted aluminum housing over lead shielding, stainless steel screen

**SIZE:** 13.7 x 11.4 cm (5.4 x 4.5 in.) (H x W)

**WEIGHT:** 2.5 kg (5.5 lb)

ALSO AVAILABLE:

Model 44-40: as above, but with a painted lead housing. See images. (Part Number 47-1538)

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

Mar 2014