

## Model 44-40 Series Shielded Alpha-Beta-Gamma Detector



Model 44-40



Model 44-40-1



Model 44-40-2

Model	44-40	44-40-1*	44-40-2
Part Number	47-1538	47-2124	47-2758
Construction	Painted lead housing Lead shielding 1.3 cm (0.5 in.) thick	Painted aluminum housing Tungsten shielding 1.1 cm (0.435 in.) thick on side 1.46 cm (0.575 in.) thick on back	Painted aluminum housing Internal lead shielding 1.3 cm (0.5 in.) thick
Size	11.4 x 10.2 x 16.5 cm (4.5 x 4 x 6.5 in.) (H x W x L)	9.7 x 8.9 x 12.4 cm (3.8 x 3.5 x 4.9 in.) (H x W x L)	13.7 x 11.4 cm (5.4 x 4.5 in.) (H x W)
Weight	2.5 kg (5.5 lb)	2.0 kg (4.5 lb)	2.4 kg (5.2 lb)

\* Equivalent to HP-210

### Specifications

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

**DETECTOR TYPE:** 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 $\pi$ ):** <sup>14</sup>C - 5%; <sup>90</sup>Sr/<sup>90</sup>Y - 22%; <sup>99</sup>Tc - 19%; <sup>32</sup>P - 32%; <sup>239</sup>Pu - 15%

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

**BACKGROUND:** 25 cpm

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

**DEAD TIME:** 80 microseconds

**ENERGY RESPONSE:** energy dependent

**OPERATING VOLTAGE:** 900 volts

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