

Model 44-89 and Model 44-94 Alpha Beta Gamma Detectors



Ludlum

This product is available through **JRT** Associates 800-221-0111



Model 44-89 (Part Number: 47-2357)



Model 44-94 (Part Number 47-2390)



Introduction

The GM pancake-type detector used in the Model 44-89 and Model 44-94 is arguably the most popular radiation detector in use throughout the world. These detectors are sensitive to alpha, beta, and gamma radiation. The convenient shape and size of these instruments provides easy handling for surveying or personal monitoring.

Each model has four detectors clustered in a different arrangement on the instrument face. The detectors operate between 850 to 1000 volts, and are compatible with any Ludlum instrument capable of supplying 900 Vdc and an input sensitivity of approximately 30 mV or higher.

Specifications

INDICATED USE: alpha, beta, gamma survey

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

DETECTOR: 4 pancake-type, halogen quenched GMs

SENSITIVITY: typically 13200 cpm/mR/hr

BACKGROUND: 240 cpm

WINDOW: 1.7 + 0.3 mg/cm² mica

WINDOW AREA: 62 cm² (9.6 in²) active; 50 cm² (7.8 in²) open

EFFICIENCY (4 π): 5% for ¹⁴C; 22% for ⁹⁰Sr/⁹⁰Y; 19% for ⁹⁹Tc; 32% for ³²P; 15% for ²³⁹Pu; **0.2% for ¹²⁵I (?)**

ENERGY RESPONSE: energy dependent

OPERATING VOLTAGE: 900 volts

CONSTRUCTION: black ABS plastic with stainless steel protective screen

SIZE: Model 44-89: 2.3 x 5.1 x 5.1 cm (0.9 x 12.8 x 12.8 in.) (H x W x L)

Model 44-94: 2.3 x 11.4 x 15.5 cm (0.9 x 4.5 x 6.1 in.) (H x W x L)

WEIGHT:

Model 44-89: 0.9 kg (1.9 lb)

Model 44-94: 0.9 kg (1.9 lb)

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