

Model 44-11

High-Energy Gamma Detector



Ludlum Measurements, Inc.



Three views shown of Model 44-11



Introduction

The Ludlum Model 44-11 and Model 44-11-1 Gamma Scintillator detectors use a Teledyne Integral Detector assembly containing a 5.1 cm (2 inch) diameter x 5.1 cm (2 inch) thick NaI (TI) crystal optically coupled to a photomultiplier tube (PMT). (compare to Model 44-20 with 7.6 cm [3 inch] crystal)

The detectors are compatible with general purpose survey meters, ratemeters, and scalers for high-energy gamma detection of approximately 60 keV to 2 MeV range. They provide high sensitivity for surveying and pulse height discrimination for single channel or multi-channel applications.

Specifications

Part Number: 47-1541

SUGGESTED INSTRUMENTS: SCA, MCA

ENERGY RESPONSE: energy dependent

OPERATING VOLTAGE: typically 500 to 1200 volts maximum

SCINTILLATOR: 5.1 x 5.1 cm (2 x 2 in.) (Dia x L) thick NaI(Tl) crystal

SENSITIVITY: typically 900 cpm/ μ R/hr (137 Cs gamma)

BACKGROUND: 9750 cpm

PHOTOMULTIPLIER TUBE: 5.1 cm (2 in.) diameter, end window with 10 stage dynode chain at approximately 60 megohms

CONNECTORS: standard series "C" for normal mode; other types available upon request. For signal splitter option: BNC for signal output and MHV for high voltage output

CONSTRUCTION: integral-line detector with aluminum cap and stainless steel body

HOUSING CONSTRUCTION: 0.05 cm (0.02 in.) thick aluminum

SIZE: 6.4 x 26.7 cm (2.5 x 10.5 in.) (Dia x L)

WEIGHT: 0.6 kg (1.4 lb)



Above:

Optionally available Sample Holder for low background sample counting. Model 180-9 Part Number 47-1591

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

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