

Model 2401-P Pocket Size Multi-Purpose Count Ratemeter



Ludlum Measurements, Inc.

Features

- Self-contained Survey Instrument
- Integrated GM Pancake Probe
- Simple to Use
- Low Cost
- Rugged



Back View

Introduction

The Model 2401-P instrument is a general purpose, self-contained, pocket-sized radiation detection meter designed around the venerable GM pancake detector. A simple switch allows the user to choose among the three ranges. Another switch selects between QUIET (click-per-event audio off), NORMAL, BAT CHECK, or OFF. The detector is conveniently packaged inside the instrument, and has a protective screen window. This instrument is available with several meter face options for measuring contamination and exposure rate.

Specifications

Part Number: 48-2875

INDICATED USE: alpha, beta, gamma survey

DETECTOR: 15 cm² (2.3 in²) pancake GM

SENSITIVITY: typically 3300 cpm/mR/hr (¹³⁷Cs gamma)

EFFICIENCY: 5% for ¹⁴C; 22% for ⁹⁰Sr/⁹⁰Y; 19% for ⁹⁹Tc; < 1% for ^{99m}Tc, 32% for ³²P; 15% for ²³⁹Pu

ENERGY RESPONSE: energy dependent

RESPONSE TIME: typically 11 seconds from 10% to 90% of final reading

METER DIAL: 0-6.6k cpm; 2.0 mR/hr; BAT OK

MULTIPLIERS: x1, x10, and x100

AUDIO: click-per-event, may be turned off by moving selector to QUIET position

POWER: 9-volt battery

BATTERY LIFE: typically 250 hours with alkaline battery at normal background levels

CONSTRUCTION: drawn and cast aluminum with membrane panel

SIZE: 4.6 x 8.4 x 13.5 cm (1.8 x 3.3 x 5.3 in.) (H x W x L)

WEIGHT: 0.4 kg (0.9 lb), including battery

ALARM: no

FUNCTION & RANGE	METER FACE PART NUMBER
COUNTRATE	
0-500 cpm	202-916
EXPOSURE RATE	
0-0.15 mR/hr	202-994
0-1.5 mSv/h	202-999
COUNTRATE / EXPOSURE RATE	
0-500 cpm / 0-0.15 mR/hr	202-857
0-1.65 kcpm / 0-0.5 mR/hr	202-992
0-6.6 kcpm / 0-2 mR/hr	202-850
0-10 cps / 0-1.9 μSv/h	202-872
0-6.6 kcpm / 0-20 μSv/h	202-1038

Meter Faces:

Specify desired meter face at time of order.

Others Available:

Ludlum Measurements manufactures other versions of this Pocket Size Ratemeter that measure other types of radiation, include audible, visual, or audible and visual alarms, and feature different capabilities in the same convenient, rugged, self-contained size.

Learn more at www.ludlums.com

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

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

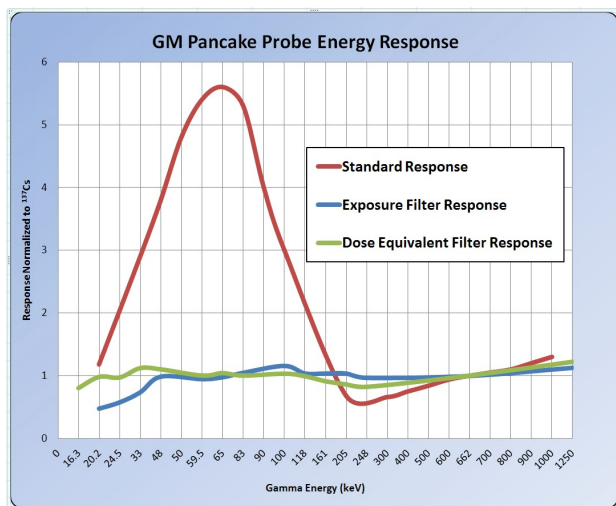
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Sliding Dose Equivalent Filter Model 4397-226 for the Model 2401-P

As most know, the venerable GM pancake has a significant over-response at lower energies between approximately 20 to 160 keV. Any exposure or dose measurements taken with an unfiltered GM pancake detector would thus have unacceptable errors at these lower energies. To counteract this tendency, Ludlum Measurements developed a sliding filter for the Model 2401-P GM pancake detector that flattens the response to within 20% referenced to ¹³⁷Cs (662 keV) over an energy range of 20 keV to 1.2 MeV.



Sliding Dose Equivalent Filter shown closed (above) and open (right).



L-Handle for Model 2401-Series Ratemeters: Model L-4397-165

Convenient L-shaped handle provides a secure and comfortable grip for the Model 2401-Series ratemeters. Loosening the attachment knob permits the handle to pivot 90 degrees to allow the instrument to be stored compactly, for example, in the Model L-2311119 case shown below.



Protective Case for Model 2401-Series: Model L-2311119

This rugged, foam-padded, water resistant, crush- and dust-proof case provides light-weight and secure storage for the Model 2401-Series of instruments. Features include high-visibility yellow color, stainless steel hardware, and easy-open latch. Lanyard included.

Size: 19 x 12.8 x 7.9 cm (7.5 x 5.1 x 3.1 in.)

Weight: 0.4 kg (0.8 lb)



Soft-Sided Case for Model 2401-Series - Model L-2310517

Zippered nylon case with belt loop offers protection and easy accessibility when carrying or storing the Model 2401-Series of ratemeters.

Belt Clip Model L-4397-176

Stainless steel clip to attach the Model 2401-Series ratemeters to belt.



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