

# Model 2242 Gamma Exposure Ratemeter

*Radiation Detection for a Safer World*



Ludlum Measurements, Inc.

## Features

- 0.1 mR/hr–999.9 R/hr Range
- Dual Energy Compensated GM Detectors
- Splashproof
- Rugged
- 7-Decade Digital Ratemeter
- RS-232 Port with Data Streaming
- Programmable Parameters
- CE Certified Instrument



Part Number 48-3437

## Introduction

The Model 2242 is a portable microprocessor-based digital ratemeter for detecting and measuring ionizing radiation. Data is presented on a 4-digit backlit LCD in units that can read in R, Sv, or Counts. Two internally-housed, energy-compensated GM detectors are capable of measuring fields from 0.01 mR/hr to 999.9 R/hr. In addition, icons inform the user of the operational status of the instrument and any alarms.

Instrument parameters, including Dead Time Correction, audible click-per-event with programmable 1, 10, 100, and 1000 divide-by; LCD backlight ON time, Fixed or Variable response time, and count overflow visual alarm, may be programmed manually using the internal switch board, or via computer using the RS-232 port. The switch board can then be removed to prevent undesired altering of setup parameters without affecting normal operation of the instrument. The Model 2242 incorporates independent adjustable alarms for each range indicated by ALERT on the LCD (first level), and ALARM with audible tone and illuminated red LED (second level). Both audible alarms can be silenced (acknowledged) by depressing the RESET switch.

The aluminum cast instrument housing with its separate battery compartment and accompanying metal handle offer an industrial robustness and quality that promote long-lasting protection and instrument life. This instrument is a complete turn-key system including the two "D" cell batteries.

## Specifications

ENERGY RESPONSE: within 15% of true value from 60 keV–3 MeV

DETECTOR: 2 internal energy compensated GM tubes

ENVIRONMENT: splashproof for outdoor use

METER: 4-digit LCD display with 1.3 cm (0.5 in.) high digits, separate annunciators for display units, alert/alarm, low battery, detector overload

RANGE SWITCH: LOW (mR/hr), HIGH (R/hr)

BACKLIGHT: pushbutton to activate

OVERLOAD PROTECTION: included, indicated by message on display

AUDIO: built-in unimorph type speaker with ON/OFF switch  
ALERT/ALARM: indicated by annunciators on display and audible tone

BATTERY LIFE: typically 200 hours with alkaline batteries, low battery indicated on display

RESET: pushbutton to zero meter

CALIBRATION CONTROLS: some are accessible from the front of the instrument, others internally located  
RS-232 PORT: outputs data every 2 seconds, can also be used to calibrate via optional software

TEMPERATURE RANGE: -30 to 50 °C (-22 to 122 °F)

POWER: 2 "D" cell batteries (housed in sealed compartment that is externally accessible)

SIZE: 16.5 x 8.9 x 21.6 cm (6.5 x 3.5 x 8.5 in.) (H x W x L)

WEIGHT: 1.6 kg (3.5 lb) including batteries

## Options:

Check Source: Model L-01-5196

Shoulder Strap: Model L-4363-413

Lighted Handle: Model L-4464-254

Stereo/Mono Headset: Model L-22-9313

Transport & Storage Case: Model L-2311062