

Model 2241-3

General Purpose Ratemeter/Scaler

Radiation Detection for a Safer World



Ludlum Measurements, Inc.

Features

- Digital Ratemeter with Built-In Scaler
- Auto Ranging
- Stores 4 Detector Setups for Quickly Swapping Detectors in the Field
- Adjustable Alarms
- Wide Range HV
- Overrange & Overload Protection



Part Number: 48-2864

Introduction

This instrument is a general purpose, digital ratemeter with a built-in scaler that provides timed counts over a user specified period. This system will store detector setup information for up to four detectors and offers a front-panel mounted rotary switch so personnel can quickly swap detectors in the field. The LCD presents readings in a four-digit, moving decimal format together with one of a wide range of available units of measure and is accompanied by several operational and alert icons. The LCD backlight can be activated and remains lit for a user-adjustable interval. This instrument features adjustable alert and alarm setpoints for both the Ratemeter & Scaler modes. Front-panel controls include a rotary switch for selecting between Off and up to four detector setups, separate switches for selecting Ratemeter Mode and Scaler Mode, audio on/off and fast/slow response time, plus push buttons for activating the LCD backlight, and for either resetting the counts or acknowledging any alarms. Calibration, user configured alarms, scaler count intervals and detector setups can be configured via an internally housed switchboard or through an RS-232 serial interface to a PC.

Specifications

SUGGESTED DETECTORS: GM, proportional, scintillation

ALERT/ALARM: indicated by annunciation on display and audible tone

DISPLAY: 4-digit LCD backlit display with 1.3 cm (0.5 in.) high digits, separate annunciators for display units, alert, alarm, low battery, detector overload, counting overflow, and scaler counting

RATEMETER: can display in R/hr, Sv/h, cpm, or cps when selector switch is in RATE position

DISPLAY RANGE: auto-ranging from 0.0 μ R/hr–9999 R/hr; 0.000 μ Sv/h–9999 Sv/h; 0 cpm–999 cpm; or 0 cps–100 kcps

SCALER: adjustable from 1–9999 seconds (in 1-second intervals)

SCALER COUNT TIME: adjustable from 1-9999 seconds

HIGH VOLTAGE: 400–2500 volt

RS-232 PORT: allows for programming and non-volatile storage of operating parameters, including display units, display range, alarm setpoints, dead time correction, click-per-event divide-by, LCD backlight On time, Fixed or Variable response time, and count overflow visual alarm. The switch board can be removed after entering or changing parameters to prevent tampering with setup values.

DISCRIMINATOR: adjustable from 2–100 mV

POWER: 2 “D” cell batteries housed in an externally accessible sealed compartment

BATTERY LIFE: typically 200 hours with alkaline batteries (low battery warning on LCD)

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F)

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

ALSO AVAILABLE: Model 2241-3i is identical to Model 2241-3, but includes an internal GM detector (0-10 R/hr) which is selected by the 4th switch position. Part Number 48-3358