Model 2241-2

General Purpose Ratemeter/Scaler



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Features

- Digital Ratemeter with Built-In Scaler
- Auto Ranging
- Stores 2 Detector Setups for Quickly Swapping Detectors in the Field
- Adjustable Alarms
- Wide Range HV
- Overrange & Overload Protection



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 two 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, Ratemeter Mode, and Scaler Mode, switches for 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. A locking toggle switch facilitates swapping detectors while preventing accidental switching. 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

Part Number: 48-2731

SUGGESTED DETECTORS: GM, proportional, scintillation

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

DISPLAY: 4-digit (6-digit in scaler mode) LCD 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

BACKLIGHT: pushbutton to activate

RATEMETER: displays in R/hr, Sv/h, cpm, or cps with selector switch at RATE position **DISPLAY RANGE:** auto-ranging from 0.0 μR/hr–9999 R/hr; 0.000 μSv/h–9999 Sv/h;

0 cpm-999 cpm; or 0 cps-100 kcps

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

LINEARITY: readings are within 10% of true value

HIGH VOLTAGE: 400-2400 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 parameter 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

