Model 2241
General Purpose Ratemeter / Scaler

Ludlum Measurements, Inc.

Features

- Digital Ratemeter with Built-In Scaler
- Auto-Ranging
- Adjustable Audible and Visual Alarms
- Wide Range HV
- Overrange & Overload Protection
- For Use with GM, Proportional & Scintillation Detectors

Introduction

The Model 2241 is a portable, rugged, microprocessor-based instrument designed for use with scintillation, Geiger-Mueller (GM), and proportional type detectors. It is constructed of cast-and-drawn aluminum with beige powder coating that aids in the decontamination of its surfaces, and is suitable for indoor or outdoor use. Parameters may be programmed either manually, or by computer through the RS-232 port. Free PC Data Logging Software and a Data Logging Data Sheet are available online.

Specifications
Part Number: 48-2444

DETECTORS: Geiger-Mueller (GM), proportional, and scintillation
ALERT/ALARM:
- indicated by annunciation on display
- built-in speaker for audible tone
- set at any range
- speaker volume control available as an option

DISPLAY: 4-digit LCD display with 1.3 cm (0.5 in.) high digits, 2 additional 0.5 cm (0.2 in.) digits for overflow counter, (SCALER mode) and exponential powers (parameter setup); separate annunciators for display units, ALERT, ALARM, low battery, detector OVERLOAD, counting OVERFLOW, and scaler COUNTING
BACKLIGHT: pushbutton activates LCD backlight for a pre-programmed time
RATEMETER: can display in R/hr, Sv/h, cpm, or cps when selector switch is in RATEMETER position
DISPLAY RANGE: auto ranging from 0.0 μR/hr – 9999 R/hr; 0.000 μSv/h – 9999 Sv/h; 0 cpm – 999 kcpm; or 0 cps –100 kcps
SCALER: adjustable from 1 – 9999 seconds (in 1-second intervals)
SCALER ALARM: adjustable from 1 – 999999 counts
DETECTOR DEAD TIME COMPENSATION (DTC): adjustable from 0 to 9999 microseconds
LINEARITY: within 10%
ADJUSTABLE PARAMETERS (via Removable Switchboard): Backlight "ON" time, set minimum Display, RS-232 data dump mode, RS-232 Detector Setup mode, Baud rate, detector dead time compensation (DTC), Calibration Constant, display Units, display Range, Time Base (seconds or minutes), Auto Divide, Response Time (variable or fixed), Ratemeter Alert/Alarm, Scaler Alarm, Scaler Count Time
AUDIO: built-in unimorph speaker with AUD ON/OFF switch and volume control potentiometer
HIGH VOLTAGE: 400 to 2400 volts (regulated within 0.2 % at 1000 Vdc; maximum load of 50 μA)
DISCRIMINATOR/INPUT SENSITIVITY: adjustable from 2–100 mV; negative pulse response
POWER: 2 "D" cell batteries housed in externally accessible sealed compartment
BATTERY LIFE: typically 200 hours with alkaline batteries (Low Battery warning icon on LCD)
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