

General Purpose Ratemeter/Scaler - Model 2241-3i

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Specifications

INDICATED USE: general purpose survey, gross counting
SUGGESTED DETECTORS: GM, proportional, scintillation
ALERT/ALARM: indicated by annunciation on display and audible tone
DISPLAY: 4-digit 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: can display in R/hr, Sv/hr, 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/hr-9999 Sv/hr; 0 cpm-999 kcpm; or 0 cps-100 kcps
SCALER: adjustable from 1-9999 seconds (in 1-second intervals)
HIGH VOLTAGE: 200-2500 volts
DISCRIMINATOR: adjustable from 2-100 mV
BATTERY LIFE: typically 200 hours with alkaline batteries (low battery warning 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
The following parameters are adjusted for each detector by a removable switchboard. Once initial setup and calibration have been completed, the switchboard can be removed without affecting normal operation of the instrument.
BACKLIGHT "ON" TIME: 5, 15, 30, 60, 90, 120, 180, or 240 seconds for backlight to stay "ON" when activated
SET MINIMUM DISPLAY: allows lower limit of auto-ranging display to be fixed, for example, display can be set to not show values less than 1 mR/hr
RS-232 DATA DUMP MODE: enables or disables binary dump mode to RS-232 port, when enabled binary data will be dumped every 2 seconds
RS-232 DETECTOR SETUP MODE: allows for detector parameters to be input by RS-232 port
BAUD RATE: 150, 300, 600, 1200, 2400, 4800, 9600, or 19200 bps
DEAD TIME: adjustable from 0-9999 microseconds
CALIBRATION CONSTANT: adjustable from 0.001-280 X 10⁹ counts/display unit
AUDIO DIVIDE: 1, 10, 100, or 1000 events per click
RESPONSE:
 FIXED: FAST response time adjustable from approximately 1-25 seconds.
 SLOW response is 5 times slower than FAST setting
 VARIABLE: dependent on number of counts present, typical times FAST is 4-25 seconds, SLOW is 4-60 seconds (All times stated from 10%-90% of final reading.)
RATEMETER ALERT/ALARM: set at any value within the effective range of each detector
SCALER ALARM: adjustable from 1-999999 counts
SCALER COUNT TIME: adjustable from 1-999999 seconds
TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F)
RS-232 OUTPUT OPTION: part no. 4408-192: This option requires a firmware change on the instrument to output ASCII data.
DETECTOR SETUPS: 4
DETECTOR SWITCH: rotating 5-position switch
DISCRIMINATOR ADJUSTMENTS: 1
INTERNAL DETECTOR RANGE: up to 10 R/hr

