

Model 375-600

Digital Radiation Monitor

Radiation Detection for a Safer World



Ludlum Measurements, Inc.

Features

- Integrated Measurement System
- Internal Scintillator Detector
- User-Programmable Alarm Settings
- Highly Visible Red Strobe Alert
- Audible and Visual Alarms
- Networkable
- 8-Hour Battery Backup



Part Number: 48-3458

Introduction

The Model 375-600 is a highly integrated, high-sensitivity gamma measurement system that combines all components into one convenient package, thus making installation simpler and less costly. The detector is a 10.3 L (630 in³) plastic scintillator shielded in all directions except beneath with 0.32 cm (0.125 in.) lead. The controller is Ludlum's popular Model 375 digital controller, which is located at one end of the cabinet. A red strobe is mounted on the top along with a large, industrial strength alarm acknowledgement pushbutton. The detector is accessible from a removable panel, and the entire system sits on a plate, which can be bolted to the floor.

Specifications

DETECTOR: internal 630 in³ lead shielded plastic scintillation detector

SENSITIVITY: typically 30 kcpm/ μ R/hr (¹³⁷Cs)

SHIELDING: 0.32 cm (0.13 in.) lead, on five sides

DISPLAY: 4-digit LED display with 2 cm (0.8 in.) characters

DISPLAY RANGE: 000.0 cpm/<units> to 9999 cpm/<units>

RESPONSE: typically 3 seconds from 10% to 90% of final reading

DISPLAY UNITS: typically set to kcpm, it can be made to display in μ Sv/h, mSv/h, Sv/h, μ R/hr, mR/hr, R/hr, μ rem/hr, mrem/hr, cpm, cps, and others

LINEARITY: readings within 10% of true value with detectors connected

CALIBRATION CONTROLS: accessible from the front of the instrument (protective cover provided)

STATUS: (green light) instrument functioning properly

LOW ALARM: (yellow LOW ALARM light and slow beep) can be set at any point from 0.0 to 9999

HIGH ALARM: (red HIGH ALARM light and fast beep) can be set at any point from 0.0 to 9999

SIGMA ALARM - (OPTIONAL): (red light and rapid beep)

DET FAIL: (red light and audible tone) indicates detector overload, no count from detectors, or instrument failure

LOW BAT: (yellow light) indicates less than 2 hours of battery power remaining

OVERLOAD: "-OL-" display and audible FAIL alarm indicates detector saturation

OVERRANGE: "----" display and activated low and high alarms indicates measured radiation field has exceeded the counting range

ALARM AUDIO OUTPUT: 85 dB at 0.6 m (2 ft) (3 kHz)

REMOTE (optional): Ludlum Model 271 or Model 272

POWER: 95 to 135 Vac (178 to 240 Vac available), 50 to 60 Hz single phase, 6 volt sealed lead-acid rechargeable battery (built-in)

BATTERY LIFE: typically 8 hours in non-alarm condition

BATTERY CHARGER: battery is continuously trickle-charged when instrument is connected to line power and turned on

CONSTRUCTION: steel housing with aluminum door, ivory powder coat finish

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F), may be certified for operation from -40 to 65 °C (-40 to 150 °F)

SIZE: 61 x 91.5 x 30.5 cm (24 x 36 x 12 in.) (H x W x D)

WEIGHT: 60.8 kg (134 lb)