

LUDLUM MEASUREMENTS, INC.

Model 375-600 Digital Radiation Monitor

Features

- Integrated Measurement System
- Internal Scintillator Detector
- User-Programmable Alarm Settings
- Highly Visible Red Strobe Alert
- Audio and Visual Alarms
- Networkable, Requires Ethernet or Webpage Option
- 8-Hour Battery Backup



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 internal detector is a 10.3 L (630 in³) plastic scintillator shielded on five sides 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

Part Number: 48-3458

DETECTOR: internal 10.3 L (630 in³) lead shielded plastic

scintillator, Dimensions: 38 x 71 x 3.8 cm (15 x 28 x 1.5 in.)

SENSITIVITY: typically 30 kcpm per $\mu\text{R/hr}$ (137Cs)

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

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

DISPLAY RANGE: 000.0 to 9999

DISPLAY UNITS: kcpm (other units available upon request)

LINEARITY: readings within 10% of true value with detector

connected

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

INDICATORS:

- STATUS: green light indicates 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 detector, 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

AUDIO: Intensity varies from approx. 69 dB to 100 dB through operation of the external rotary baffle and the internal voltage connection. Frequency is approx. 3 kHz.

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

REMOTE (optional): Ludlum Model 271 or Model 272 **DATA OUTPUT:** 9-pin connector for 5-decade log output, RS-232 output, signal ground connection, DET FAIL and HIGH ALARM signals, and direct connection to battery and ground.

POWER: 95 - 135 Vac (178 - 240 Vac available), 50 - 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)

Options: Various options are available for Model 375 systems, including remote displays, alarm annunciators, signal output, and networking options. Visit our website to view the current list of available options.