

# Model 375-20 Monitoring System



Ludlum Measurements, Inc.

## Features

- Affordable Digital Controller
- 2 Weatherproof, Shielded Sodium Iodide [NaI(Tl)] Detectors with 61 m (200 ft) Cables
- Programmable Alarms
- Networkable, Requires Ethernet or Webpage Option
- 48-Hour Battery Backup
- Includes Cesium (<sup>137</sup>Cs) Check Source



## Introduction

This simple and cost-effective vehicle gateway monitor consists of 2 Model 44-137 lead-shielded scintillation detectors, supplied with or without environmental enclosures, linked to the Ludlum Model 375 Controller. The adaptable, compact, networkable controller's digital design enhances setup and operation of the system. It is typically wall-mounted indoors near the operator to take advantage of its ability to supply local alarms, but the controller may also be connected to external alarms or networked into the Ethernet, if desired (with optional accessories). The 48-hour battery backup keeps the system operational in the event line power is lost.

## Specifications

Part Number: 48-3245

**INDICATED USE:** radiation monitoring

**SYSTEM OPERATION:** typically located at the scale/entrance area, the system will continuously monitor materials for radiation

**DETECTORS:** 2 ea. 5.1 x 5.1 cm (2 x 2 in.) (Dia x L) sodium iodide [NaI(Tl)] lead shielded scintillation detectors in weathertight housings

**TYPICAL SENSITIVITY (<sup>137</sup>Cs):** 900 cpm per  $\mu$ R/hr per detector

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

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

**DISPLAY UNITS:** kcpm

**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

**DET FAIL:** (red light and audible tone) indicates 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 allows for connection of red strobe for remote indication of an alarm

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

**BATTERY LIFE:** typically 48 hours in non-alarm condition; 12 hours in alarm condition

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

**CONSTRUCTION:** (controller) aluminum housing with ivory powder coat

**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:** electronics: 18.7 x 24.6 x 6.4 cm (7.5 x 9.7 x 2.5 in.) (H x W x L); detectors: 8.9 x 22.4 cm (3.5 x 8.8 in.) (Dia x L)

**WEIGHT:** electronics 2.9 kg (6.5 lb); detectors: 5.8 kg (12.7 lb) each

## Options

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

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Note: specifications subject to change without notification. We are not responsible for errors or omissions.

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