

Model 375P-2000 Outdoor Monitoring System



Ludlum Measurements, Inc.

Features

- Checks for Surface Contamination Entering/Exiting Facilities
- Affordable Digital Controller
- Four Weatherproof Encased and Shielded Plastic Scintillator Detectors
- User-Adjustable Alarms
- Networkable, Requires Ethernet or Webpage Option
- 24-Hour Battery Backup



Introduction

The Model 375P-2000 is a Digital Model 375 Controller coupled to four lead-shielded 7866 cm³ (480 in³) plastic scintillator detectors. The detectors are encased in weathertight enclosures suitable for the outdoor environment. The Model 375P Controller is not weatherproof and must be mounted either indoors or within an environmental enclosure (available separately). This cost-effective solution offers a simple system that is easy to operate and maintain.

The controller supplies local alarms, but may also be connected to external alarms or put onto an Ethernet network if desired. In addition, a 24-hour battery backup to keep the system operational in the event power is lost.

Vehicle Radiation Monitor: The Model 375P-2000V (Part Number: 48-4185) variant is also available. This system includes vehicle presence sensors that prevent the unit from alarming unless a vehicle is being surveyed and the alarm threshold has been exceeded.

Specifications

Part Number: 48-4236

SYSTEM INCLUDES

- 1 ea. Model 375P electronics
- 4 ea. 7866 cm³ (480 in³) plastic scintillation detectors with 0.33 cm (0.13 in.) lead shielding in weathertight housings

TYPICAL SENSITIVITY (137Cs): 400 cps per $\mu\text{R/hr}$ per detector

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

STATUS: (green light) instrument functioning properly

SIGMA ALARM: indicated by red ALARM light and audible tone (can be set at any point from 0.0 to 999 Sigma)

SUM ALARM: indicated by red ALARM light and audible tone can be set at any point from 0.0 to 999 kcps) *Note:* audible alarm annunciators can be configured as a single beep if desired

DET FAIL: red light and audible tone greater than 68 dB at 61 cm (24 in.) indicates no counts from detector or instrument failure

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

OVERRANGE: ("OL-") indicates radiation field being measured exceeds counting range of instrument

RELAY OUTPUT: mains (120 or 240 Vac) output on alarm

DATA OUTPUT: 9-pin connector providing RS-232 output, signal ground connection, FAIL and ALARM signals (current sink), and direct connection to battery and ground

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

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

BATTERY LIFE: typically 24 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 (ELECTRONICS): aluminum housing with ivory powder coat

TEMPERATURE RANGE: -15 to 50 °C (5 to 122 °F)

SIZE: electronics: 26.2 x 24.6 x 8.4 cm (10.3 x 9.7 x 3.3 in.) (H x W x D)

detectors (ea.): 20.3 cm x 183 cm (8 x 72 in.) (Dia x L)

WEIGHT: electronics: 4.2 kg (9.3 lb)

detectors (ea.) 29.5 kg (65 lb)

Options

Various options are available for Model 375-Series systems, including enclosures, remote displays, alarm annunciators, signal output, and

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556

Web: <http://www.ludlums.com> Tel: 800-622-0828 / 325-235-5494 / Fax: 325-235-4672 / Email: sales@ludlums.com

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

Nov 2019