

Model 375-20 Waste Monitor

Radiation Detection for a Safer World



Ludlum Measurements, Inc.

Features

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



Part Number: 48-3245

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

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

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 Red Alarm Strobe, 12.7 cm (5 in.) diameter with 15 m (50 ft) cable (pictured)

~110 Vac Part No. 4396-171

~220 Vac Part No. 4396-173)

Data/Time Printer Kit, 20 column (Part No. 4396-072) (pictured above)

PC Data Logging Software (Part No. 4396-167)

