LUDLUM MEASUREMENTS, INC.

Model 375
Digital Wall-Mount Area Monitor

Features

- Easy Setup and Use
- Detection Range Dependent on Detector
- User-Programmable Alarms
- User-Programmable Units of Measurement
- Adapts to a Wide Variety of Detectors
- Networkable, Requires Ethernet or Webpage Interface Option
- 48-Hour Battery Backup
- CE Certified

Views of left side panel and bottom panel of instrument.

Introduction

The Model 375 is a versatile, compact, and easy-to-use digital electronic controller designed for monitoring radiation in areas. Its simple design accommodates many different detectors to suit a wide variety of applications, and it is equipped with a local readout and alarms. These versatile units may also be connected to an optional auxiliary indicator/annunciators to alert personnel at remote locations. The user-friendly, digital design enhances setup and operation. The Model 375 units may also be networked to a central PC-based station where data are logged and alarms posted.

This affordable and very flexible system has found its way into many applications resulting in a full complement of detectors, accessories, and options that include remote indicator alarms, printers, relay outputs, weather-proof enclosures, Ethernet networking software, industrial cameras, and more.

Sites requiring centralization of their data can link multiple 375 systems together via Ethernet and view them using a common web browser with the purchase of Ludlum's Webpage & Service Software. This program collects all data in real time, logs data, and annunciates any alarms. The system can also send intelligent e-mail alerts to responsible personnel and capture a picture of whatever triggered an alarm if optional Ethernet cameras are employed.

Pre-configured Area Monitoring Systems that incorporate the Model 375 Digital Wall-Mount Area Monitor include:

Model	Operating Range	Part Number
375	dependent on detector	48-2230
375/1	0.1 to 9999 μR/hr	48-3831
375/2	0.1 mR/hr to 1 R/hr	48-2410
375/4	1.0 mR/hr to 8 R/hr	48-2411
375-10	1.0 to 2,000 μR/hr	48-3443

Also Available: optional NEMA 4 Weatherproof Enclosure for Model 375 (Part Number 4396-068)

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556
Web: ludlums.com **Tel**: 800-622-0828 / 325-235-5494 **Fax**: 325-235-4672 **Email**: sales@ludlums.com

Sep 2021

Specifications

Part Number: 48-2230

INDICATED USE: radiation monitoring
COMPATIBLE DETECTORS: GM, proportional, and scintillation
DISPLAY: 4-digit LED display with 2 cm (0.8 in.) character height
DISPLAY RANGE: 000.0 TO 9999 (Series One: 00.00 to 9999)
DISPLAY UNITS: can be made to display in µR/hr, mR/hr, R/hr, µSv/h, mSv/h, Sv/h, µrem/hr, mrem/hr, rem/hr, cpm, cps, and others
LINEARITY: readings within 10% of true value
RESPONSE: typically 3 seconds from 10% to 90% of final reading
INDICATORS:

- **STATUS**: (green light) instrument functioning properly
- **LOW ALARM**: (yellow light and slow [1 per second] beep) can be set at any point from 0.0–9999
- **HIGH ALARM**: (red light and fast [4 per second] beep) can be set at any point from 0.0-9999
- **DET FAIL**: (red light and audible tone) for conditions of detector overload, no count from detector, or instrument failure
- **LOW BAT**: (yellow light) indicates less than 2 hours of battery power remaining
- **OVERLOAD**: display reading of -OL- and audible FAIL alarm indicate detector saturation
- **OVER-RANGE**: display reading of "----" and activated low and high alarms indicate that the radiation field being measured has exceeded the counting range of the instrument (or when dead time correction accounts for more than 75% of the displayed reading)

REMOTE (optional): allows for connection of Ludlum Model 271 or 272 remote units
HIGH VOLTAGE: adjustable from 450 to 2500 V
THRESHOLD: adjustable from 2 to 100 mV
DEAD TIME: adjustable to compensate for dead time of the detector and electronics (can be read of the display)
AUDIO: Intensity can very from approximately 68 dB to 100 dB through operation of the external rotary baffle and the internal voltage connection. Frequency is approximately 3 kHz
DATA OUTPUT: 9-pin connector providing 5-decade logarithmic output, RS-232 output, signal ground connection, FAIL and ALARM signals (current sink), and direct connection to battery and ground
RELAYS: 9-pin connector with male pins provides connection to three fail-safe form C relays, activated by LOW ALARM (alert), HIGH ALARM, and instrument FAIL. These contacts are potential-free (non-powered), but can handle 125 Vac at 0.3 A or 30 Vdc at 1 A.
RS-232 OUTPUT: a 2-second dump for computer data logging
ETHERNET (optional): 10 Base-T connection for use with Ludlum's software
CALIBRATION CONTROLS: accessible from the front of instrument (protective cover provided)
POWER: 9 Vdc wall-mount adapter, handles any mains voltage in the world, supplied with four sets of prongs for almost any style wall receptacle
BATTERY LIFE: typically 48 hours in non-alarm condition; 12 hours in alarm condition
BATTERY CHARGER: battery is continuously trickle charged when the instrument is connected to line power and turned on
CONNECTOR: series "C" (others available)
CONSTRUCTION: aluminum housing with ivory powder-coat finish
TEMPERATURE RANGE: -15 to 50 °C (5 to 122 °F); may be certified for operation from -40 to 65 °C (-40 to 150 °F)
SIZE: 18.7 x 24.6 x 6.4 cm (7.4 x 9.7 x 2.5 in.) (H x W x D)
WEIGHT: 2.1 kg (4.7 lb)

Options

Various options are available for the 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.

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556
Web: ludlums.com **Tel**: 800-622-0828 / 325-235-5494 **Fax**: 325-235-4672 **Email**: sales@ludlums.com