LUDLUM MEASUREMENTS, INC.

Model 375/2
Digital Wall-Mount Gamma Area Monitor

Features

- Easy Setup and Use
- Internally Mounted, Energy Compensated GM Detector
- Operating Range: 1 µSv/h to 10 mSv/h (0.1 mR/hr to 1 R/hr)
- User-Programmable Alarms
- User-Programmable Units of Measurement
- Audio and Visual Alarms
- Networkable, Requires Ethernet or Webpage Interface Option
- 48-Hour Battery Backup

Part Number: 48-2410

Views of left side panel and bottom panel of instrument.

Introduction

The Model 375/2 Digital Wall-Mount Area Monitor is designed for visibility and ease of use. This popular and versatile instrument has an internally housed energy compensated GM detector with a range from 1 µSv/h to 10 mSv/h (0.1 mR/hr to 1 R/hr). Different versions of the Model 375 instrument are available with connectors for an external detector instead. Other features are a wall-mount chassis and a four-digit LED display that is readable from 9 meters (30 feet) away. Backlit indicators provide easy notification of alarms, warnings, and instrument status. Audible tones provide additional alerts.

Parameters are protected under a calibration cover. Calibration is easily accomplished by moving the CAL dipswitch to the right, and using the pushbuttons to increment or decrement the calibration constant, dead time correction, and alarm point parameters. Parameters are stored in non-volatile memory (retained even with power disconnected). A five-decade logarithmic analog output is provided. The battery backup provides 48 hours of additional use after the primary power is removed.

above: Optional Environmental Enclosure for Model 375 Digital Controller : NEMA 4 Weatherproof Enclosure with see-through front window
(Part Number 4396-068)

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Specifications

INDICATED USE: gamma monitoring
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)
OPERATING RANGE: 1 µSv/h to 10 mSv/h (0.1 mR/hr to 1 R/hr); external detectors will have different ranges
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 with detector connected
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 to 9999
- **HIGH ALARM**: (red light and fast [4 per second] beep) can be set at any point from 0.0 to 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
ETHERNET (optional): 10 Base-T connection for use with LMI Ethernet (PN 4558-098) or Webpage (PN 4558-105) software
CALIBRATION CONTROLS: accessible from the front of instrument (protective cover provided)
HIGH VOLTAGE: user-adjustable from 450 to 2500 volts
DEAD TIME: user-adjustable to compensate for dead time of the detector and electronics (can be read off the display)
AUDIO: can vary from approximately 68 dB to 100 dB through operation of the external rotary baffle and the internal voltage connection
RS-232 OUTPUT: a 2-second dump for computer data logging
POWER: 9 Vdc wall-mount adapter 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
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 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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