

## Model 375-9 Gamma Area Monitor

Part Number: 48-3560

### Features

- Integrated Measurement System
- External Ion Chamber Detector
- User-Programmable Alarm Settings
- Audible and Visual Alarms
- Networkable, Requires Ethernet or Webpage Option



### Introduction

The Model 375-9 Digital Wall-Mount Area Monitor is designed for visibility and ease of use. This monitor provides a fast response to pulsed fields by utilizing an external ion chamber covering any four consecutive decades between 1  $\mu\text{Sv/h}$  and 1000  $\text{mSv/h}$  (0.1  $\text{mR/hr}$  and 100  $\text{R/hr}$ ). It features a wall-mount chassis and a four-digit LED display that is readable from 9 meters (30 feet) away. Backlit indicators warn of low radiation (yellow), high radiation (red), instrument failure (red), and low battery (yellow), along with an audible alarm. A green status light is a positive indication of instrument operation.

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 and alarm point parameters. Parameters are stored in non-volatile memory (retained even with power disconnected). A five-decade logarithmic analog output is provided. A battery backup provides 48 hours of additional use after the primary power is removed.

**Note:** Since the detector is classified as a pressure vessel, users must be careful to follow shipping regulations regarding any shipment of this device.

### Specifications

**DETECTOR:** external Model 45-9 Ion Chamber as detailed below

**Detector Housing:** aluminum with beige powder-coat finish, 7.6 x 25.7 cm (3 x 10.1 in.) (Dia x L)

**Ion Chamber:** (shown above) 17  $\text{cm}^3$  volume; stainless steel wall chamber filled with xenon at 1.01 MPa (10 atm) pressure.

**OPERATING RANGE:** Typical configuration is 1  $\mu\text{Sv/h}$  to 10  $\text{mSv/h}$  (0.1  $\text{mR/hr}$  through 1  $\text{R/hr}$ ). Other ranges available are 10  $\mu\text{Sv/h}$  to 100  $\text{mSv/h}$  (1  $\text{mR/hr}$  to 10  $\text{R/hr}$ ), or 0.1  $\text{mSv/h}$  to 1  $\text{Sv/h}$  (10  $\text{mR/hr}$  to 100  $\text{R/hr}$ ). Selection of ranges must be decided at time of purchase. Contact Ludlum Measurements for further details.

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

**DISPLAY RANGE:** 000.0 to 9999

**DISPLAY UNITS:** can be made to display in  $\text{mR/hr}$ ,  $\text{R/hr}$ ,  $\mu\text{Sv/h}$ ,  $\text{mSv/h}$

**LINEARITY:** readings within 10% of true value with detector 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 detector overload, no count from detectors, or instrument failure

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

**ALARM AUDIO:** 68 dB at 0.6 m (2 ft) (3 kHz). Can be configured as a single beep or multiple beeps, with the intensity controlled by rotating the baffle on the device.

**RS-232 OUTPUT:** 2-second dump for computer data logging

**REMOTE (optional):** Ludlum Model 271 (Part Number 48-2475) or Model 272 (Part Number 48-2656)

**POWER:** 95 to 135 Vac (178 to 240 Vac available), 50 to 60 Hz single phase, 6-volt sealed lead-acid rechargeable 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:** aluminum housing with ivory powder coat finish

**TEMPERATURE RANGE:** -20 to 50  $^{\circ}\text{C}$  (-4 to 122  $^{\circ}\text{F}$ ), may be certified for operation from -40 to 65  $^{\circ}\text{C}$  (-40 to 150  $^{\circ}\text{F}$ )

**SIZE:** electronics: 18.7 x 24.6 x 6.4 cm (7.4 x 9.7 x 2.5 in.) (H x W x D)

**WEIGHT:** 2.9 kg (6.5 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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Note: specifications subject to change without notification. We are not responsible for errors or omissions.

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