

Model 252 Security Area Radiation Monitor



Ludlum Measurements, Inc.

Features

- **Range: 0.01 mR/hr to 1000 R/hr**
- **TCP/IP networking with automatic email notification**
- **Standard web browser interface**
- **Data logging to MS SQL database**
- **Optional camera image capturing**

Introduction

The Model 252 was primarily designed as a security type area radiation monitor intended to watch over highly radioactive materials confined to a protected area. The system incorporates an energy compensated GM detector with a detection range of 0.1 uSv/hr to 10 Sv/hr (0.01 mR/hr to 1000 R/hr). It also accepts an input signal from an external security type sensor for monitoring doors, seals or RFID's.

If the ambient radiation level ever exceeds or falls below set limits, or if the optional remote security sensor is triggered, an alarm is immediately posted through an ethernet connection and via a relay output.

A network of up to 50 security type area monitors can all be monitored simultaneously using Ludlum's Webpage and Service Software. This system monitors all areas in real-time, logs data and posts any alarms. It can additionally send emails to responsible parties automatically and, capture picture images if optional ethernet cameras are employed.

While the Model 252's design is security driven, it can also serve as a simple, low cost area radiation monitor reporting the ambient radiation levels over an ethernet network. The instrument itself has no local readout or display other than a simple LED signalling whether the instrument is functioning properly or not. Optional alarm annunciators can be added to alert nearby personnel if required.



Part Number: 48-3733

Specifications

Gamma Radiation Range: 0.01 mR/hr to 1000 R/hr

Detector: energy compensated GM

High Alarm threshold: adjustable throughout entire detection range, meeting or exceeding threshold triggers relays and ethernet warnings

Low Alarm threshold: adjustable throughout entire detection range, radiation levels below threshold triggers relays and ethernet warnings

Ethernet: RJ-45 connector for 10/100 Base T Ethernet network

External Sensor: for external intrusion detection, triggers relays and ethernet warning

Relays: fail-safe activated form C (common normally open, and normally closed) relays for radiation alarm and tamper conditions, internal tamper microswitch activates relays and ethernet warning whenever the enclosure is opened

LED Indicators: Green = OK,
Red = indicates either radiation or tamper/intrusion alarm

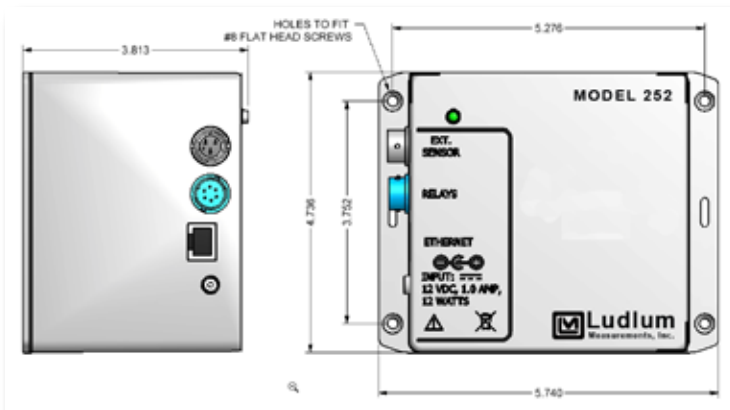
Construction: ABS plastic, flammability rated UL94V-0

Mounting: wall-mounted using 4 ea #8 screws, not supplied, tamper-proof screws recommended

Power Input: 12 Vdc input (universal wall-adaptor supplied), 1.0 amp, 12 W maximum

Size: 13.5 x 14.5 x 9.7 cm (5.3 x 5.7 x 3.8 in.)
(H x W x L)

Weight: 1.4 kg (3 lb)



Webpage & Service Software



Ludlum Measurements, Inc.

Introduction

Ludlum's Webpage & Service program is a radiation network software package that collects and displays radiation levels and alarm status from up to fifty Ludlum monitors. Using this interface, radiation data may be placed onto the Ethernet network for real-time monitoring, email alerts, and saved into a database. Because the Supervisor software runs as a Windows Service, it continues running even if no user is logged onto the computer.

The radiation data is logged to a Microsoft SQL database and may also be logged to a comma delimited text file. The service can be configured to send an email alert when an alarm or failure occurs on any of the connected instruments. The installation CD includes a copy of MS SQL Server Express, which is a free version of the Microsoft SQL Server. The installation CD also has a copy of .NET Framework 2.0, which is a requirement of the SQL Server.

The service is used in conjunction with the server application which provides a user-friendly interface to the data, requiring only a standard web browser. Up to 10 browsers can be connected to the database at any given time using the free version of SQL Server-more users may be accommodated by purchasing a different version of SQL Server.

Order Part Number: 1370-077

Webpage & Service Software Specifications

Communication: Uses TCP/IP for basic communication across an Ethernet (LAN) Local Area Network

Service: Program runs in the background any time the computer is turned on - allows more complete 24/7 datalogging and webpage access.

Webpage: Accessible by any network user with proper permissions using a standard web browser like Internet Explorer or Mozilla Firefox.

Webpage Windows:

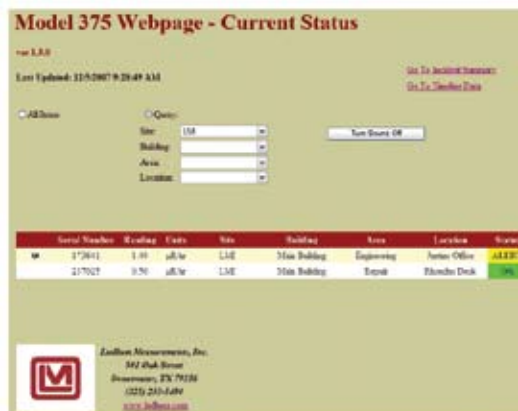
Current Status - Current status and reading of all or selected area monitors

Incident Summary - List of alarms or failure messages of all or selected instruments over a specified time/date range

Timeline Data - graph of a particular instrument's radiation readings over a specified time/date range

E-mail Support: Alarms can immediately notify responsible personnel. Three sets of 10 e-mail addresses are available separated by shift number and by alarm category.

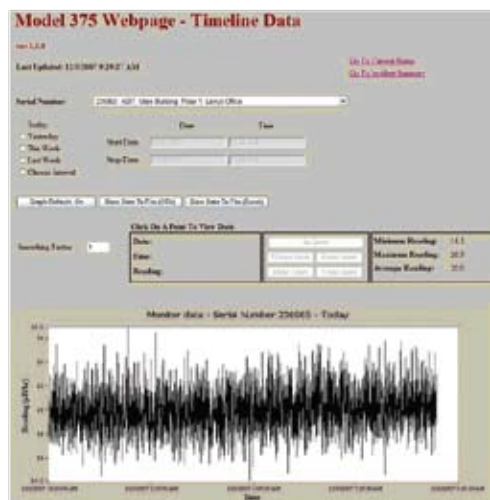
Camera Support: Optional Ethernet cameras can capture a picture of what triggers the alarm.



Current Status



Incident Summary



Timeline Data