



## Product/Specification Bulletin

### SUPERIOR™ Gas Detector Model SLD-1 Single Channel (One Gas)



Event alarm log records up to 256 events, with time and date, which can be viewed on the display or downloaded from the optional serial port.

- Sensor life and calibration reminder timers.
- 4-20 mA gas level monitor output.
- Password protection for all parameter settings.
- High, Low, Latching and Non-Latching alarm relays.
- Two level alarm settings for “Warning” and “Danger” gas levels.
- All alarm relays are user adjustable for N/O, N/C, Latch or Non-Latch.
- Remote alarm acknowledgment of any alarms up to 250 ft. (76 meters) from the controller.
- Flashing backlight screen when alarm acknowledgment is required.

#### APPLICATION

The SUPERIOR™ Model SLD-1 is designed for use in:

- Wastewater treatment plants
- Water purification plants
- Swimming pools
- Cooling towers - air scrubbers
- Food and beverage processing
- Chemical processing

SUPERIOR™ design provides ease of operation with top performance. The SUPERIOR™ Series SLD-1 Gas Detector can be placed where most convenient for the operator for ease of use while the gas sensor can be placed in the monitored environment up to 1000 feet (305 meters) away.

Materials used in manufacturing the SUPERIOR™ Series SLD-1 Gas Detectors have been carefully selected for their superior quality and performance in situations and conditions far more extreme than conditions to be encountered in actual use.

#### GENERAL DESCRIPTION

The SUPERIOR™ Model SLD-1 Gas Detector is a state-of-the-art, microprocessor controlled instrument capable of detecting Chlorine, Sulfur Dioxide, Ammonia, and Ozone gasses at levels far below the threshold of human awareness. SUPERIOR™ Single Point Gas Detectors are an “operator friendly” and economical way to protect personnel and property. The detector will monitor gas levels well below OSHA requirements, and activate warning devices when threshold levels are reached.

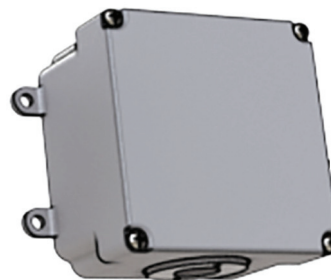
The Model SLD-1 Gas Detector consists of a Controller/Alarm module, and a remote gas sensor module which can be located up to 1000 feet (305 meters) away from the controller. The sensor responds immediately to the presence of gas, and recovers very quickly when the gas has cleared. The controller/alarm module is housed in a NEMA-4X enclosure. Many features which are extra cost options in other gas detectors, are standard with the SLD-1.

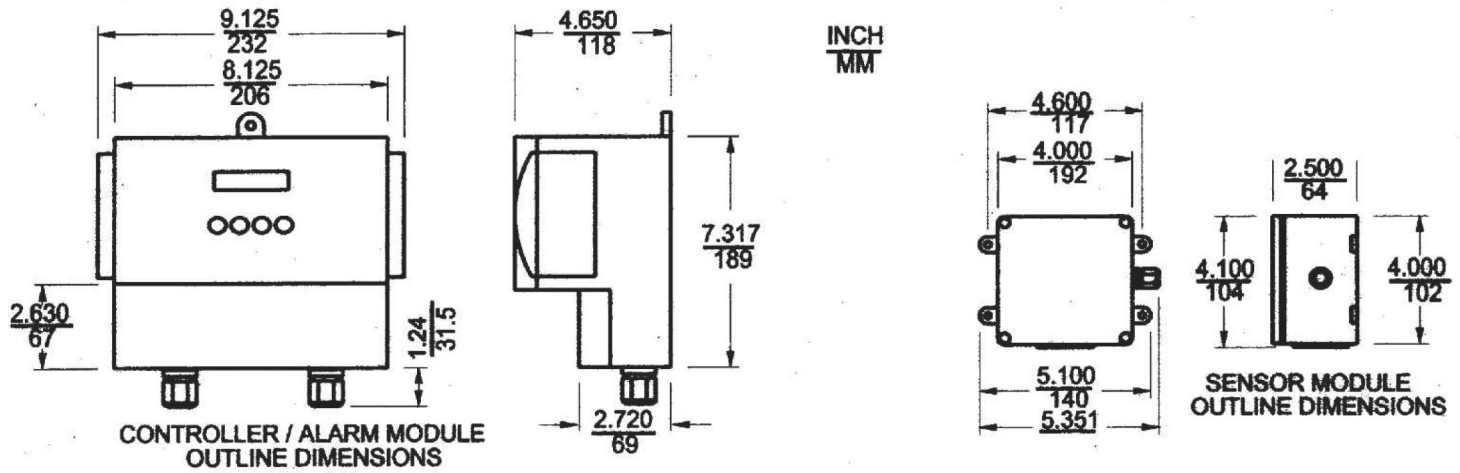
#### FEATURES

- User-friendly key pad interface with functions indicated by individual menu display screens.
- 16-character by 2-line display, with green LED back light for easy reading, even in low light areas.
- NEMA-4X controller enclosure.
- 95 dB internal alarm horn

#### AVAILABLE OPTIONS

- Internal Battery backup with charger. An external UPS may also be used to allow full function operation over extended power outages.
- RS232 serial port for downloading data.





## TECHNICAL SPECIFICATIONS

### Sensor Inputs (Analog Inputs)

|                                |                              |
|--------------------------------|------------------------------|
| Maximum Number of Gas Sensors: | One                          |
| Gas Sensor Signal:             | Current Loop ( 4-20- mA )    |
| Loop Voltage:                  | 15V, short circuit protected |
| Maximum Sensor Distance:       | 1000 ft. (305 meters)        |

### Sensor Outputs (Analog Outputs)

|                     |         |
|---------------------|---------|
| Signal Type:        | 4-20 Ma |
| Voltage Compliance: | 12V     |
| Maximum Load:       | 600Ω    |
| Minimum Load:       | 0Ω      |
| Number of Outputs:  | One     |

### Relays & I/O

|                         |                                   |
|-------------------------|-----------------------------------|
| Type:                   | Form-A (N/O)                      |
| Maximum Current Rating: | 5A ( resistive )                  |
| Suppression             | 275 V, 10J, MOV                   |
| Voltage:                | 250VAC/30VDC                      |
| Quantity:               | 3 ( 1 Danger, 1 Warning, 1 Alarm) |

|                               |            |
|-------------------------------|------------|
| Remote Acknowledgment Switch: | Yes        |
| Horn Output:                  | Yes:10-24V |

### Computer & Display

|                          |                                     |
|--------------------------|-------------------------------------|
| Microcontroller:         | 68HC12 type                         |
| ROM:                     | 128k, FLASH                         |
| ROM Upgradable in Field: | Yes                                 |
| Real-Time Clock:         | Yes                                 |
| RS232 Port:              | 2 ( one standard, one optional)     |
| Display:                 | LCD, 2-Line, 16 char./line, backlit |
| Pushbuttons:             | Four, tactile dome type             |

### Power Supply

|                           |             |
|---------------------------|-------------|
| A.C. Line Voltage (115V): | 85V - 130V  |
| A.C. Line Voltage (230V): | 170V - 250V |
| Power:                    | 12W         |
| Optional D.C. Supply:     | Sealed NiMH |

### Environmental

|                        |                             |
|------------------------|-----------------------------|
| Operating Temperature: | 32°F to 122°F (0°C to 50°C) |
| Humidity:              | 2%, non-condensing          |

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