

# GD-1000

## Gas Leak Detector



### Features

- Alarms in presence of a target gas
- Single or dual sensor configuration
- Field programmable alarms
- 4-20 mA DC output
- Audible and visual alerts
- Optional battery backup

GD-1000

### Description

The Model GD-1000 Premier Series Gas Detector is a fast, reliable, easily programmable instrument for detection of a number of different gasses. The unit consists of an electro-chemical gas sensor and a microprocessor-based alarm indicator unit. The sensor can be mounted in the area of potential leakage, while the monitor remains in a safe area, protecting the operator from exposure to the gas leak. The operator is alerted to a leak by an audible alarm and flashing display on the indicator. The alarm indicating unit can interface with up to two sensors which can be mixed or matched.

#### Calibration:

Field calibration of the GD-1000 is ultra-simple. A special program feature in the indicator allows the operator to perform field calibration from the operator keypad using only a simple voltmeter and a 4-20 mA DC signal generator. Whether calibrating electrically or using a calibration gas, there is no need to open the instrument to accomplish calibration.

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### Gas Sensor

The Gas Sensor is housed in a weatherproof enclosure. The sensor reacts rapidly to the target gas in the atmosphere. The signal from the sensor is conditioned and displayed as gas concentration at the remotely mounted alarm indicator unit. Sensor status is monitored via an LED mounted on the sensor assembly.

### Alarm Indicator Unit (AIU)

The electronics of the Alarm Indicating Unit are housed in a NEMA 4X enclosure. The unit has a back lit 2-line by 16-character LCD display which provides all information in a clear and easily readable, alpha-numeric format. Upon sensing an alarm condition the display will flash and the loud, onboard audible alarm will sound. The unit provides an isolated 4-20 mA dc output signal for recording or transmission to remote instrumentation or a computer.

A RS232 serial port is also available. Four user programmable relays are provided: two for actuation of Danger (shared on dual channel units) and Critical alarm levels; the third is reserved for the Critical alarm for Channel 2; and the fourth monitors sensor failure and, when furnished, backup battery condition. Alarm set points and configuration parameters are programmed directly through the front panel pushbuttons and stored in non-volatile memory.

### Options:

- 1-hour internal battery backup
- 24-hour external battery backup (Model BBU1000)
- Second gas sensor (any gas)
- Second isolated analog output
- 2 additional user-definable relays

Indicator Specifications	
Enclosure	Nema 4X, 6.5"X6.5"X5.5"h
Analog output	Isolated 4-20 mA dc into 650 ohms max
Digital interface	RS-232 serial, RS-485 Modbus RTU
Power requirement	115/230 V ac 50/60 Hz, switch selectable
Display	2 line 16 character backlit LCD
Alarm contacts	Programmable, (4) 250 V ac, 32 V dc @ 3 A
Sensor unit dimensions	4" X 4" X 2" h
Indicator dimensions	6.5" X 6.5" X 5.5" h

Gas Sensor Specifications			
Target Gas	Chlorine	Sulfur Dioxide	Ozone
Range, full scale	0.1-30 ppm	0.1-30 ppm	0-100 ppm
Sensor Resolution	0.1 ppm	0.5 ppm	20 ppb
Temperature	-20 to + 50 °C	-20 to + 50 °C	-20°C to +50 C

