

Model M1 Gas Monitor

Toxic / O₂ or Combustible Gas Detection

- ◆ Certified for use in Explosion Proof Installations
- ◆ Continuous digital LCD readout in engineering units
- ◆ Non-intrusive one-person calibration
- ◆ Standard 4-20 mA output transmits 1.5mA "In Cal" signal
- ◆ Power-up and post-cal delay eliminates false alarms
- ◆ Fault Supervision circuitry monitors for failed sensor; outputs 0mA
- ◆ Offset and gain readings allow tracking of sensor degradation
- ◆ Highly visible alarm LEDs
- ◆ Aluminum sensor head available for reactive gases
- ◆ Options include 5A relays, isolated 4-20mA output or MODBUS®

The GDS Corp Model M1 Gas Monitor detects combustibles, toxic or oxygen levels and displays calibrated values in engineering units on a 3 1/2 digit LCD readout. Easily replaceable sensors and options that include MODBUS®, 5A form C relays and isolated 4-20mA outputs enable the M1 gas monitor to satisfy the most demanding gas detection applications.

Non-intrusive magnetic zero / span controls allow one-person calibration without opening the enclosure or declassifying a hazardous area. A built-in post-calibration or power-up delay locks the 4-20mA output to eliminate false alarms due to calibration span gas or sensor stabilization.

Three M1 models are available. The M1/LEL accepts catalytic bead combustible detectors; the M1/EC accepts low level electrochemical sensors and the M1/mA is wired to accept an external 4-20mA current loop input. Each M1 features a standard 4-20mA output. Option boards include three 5A form C relays, MODBUS interface or isolated 4-20mA output.

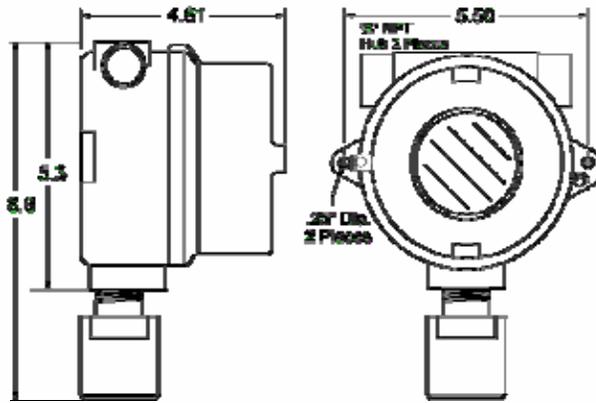
A "Unity" control resets ZERO and SPAN settings to the middle of their range and clears any internal gain and offset settings. Diagnostic messages on the LCD indicate modes such as FAULT, CAL, DELAY and ESL (end of sensor life).



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GDS CORP

ALL DIMENSIONS IN INCHES



- Operating Voltage** 19-30VDC at less than three watts; 12VDC version available
- Display** 3 1/2 digit LCD displays engineering units, values and modes
- Input** Accepts standard GDS Corp. toxic, oxygen or combustible sensors
- Output** Standard 3-wire 4-20mA current sink output. Max loop R is 750 ohms with nominal 24VDC power supply.
- Temp Range** -40°C to +60°C operating
- Housing** Instrument enclosure suitable for Class 1, Div 1, 2, Groups B,C,D; Class 2, Div 1, 2, Groups E,F,G. NEMA 3, 4, 7 BCD, 9 EFG, CENELEC- EEx d II B IP66. Third party approvals from UL, FM, CSA
- Dimensions** Width 5.4" (137 mm), Height 8" (203 mm), Height 5" (127 mm). Shipping weight 6.5 pounds (3 kg)
- Approvals** CSA Certified C22.2 No. 152 for combustibles & ISA S82.02
- Warranty** Two years on electronics and one year on sensors from date of purchase

Model M1 Order Guide

M1 XX-YYYY-Z-Q

Suffix "XX" - Gas Type ^{1, 2}

- | | |
|-----------------------------------|------------------------|
| 10 Oxygen | 21 Ozone |
| 11 Carbon Monoxide | 22 Ethylene Oxide |
| 12 Chlorine ² | 23 Arsine |
| 13 Chlorine Dioxide ² | 24 Silane |
| 14 Hydrogen | 25 Fluorine |
| 15 Hydrogen Sulfide | 26 Phosgene |
| 16 Hydrogen Cyanide | 27 Hydrazine |
| 17 Hydrogen Chloride ² | 28 Nitric Oxide |
| 18 Hydrogen Fluoride ² | 29 Nitrogen Dioxide |
| 19 Sulfur Dioxide | 30 Mercaptane TBM |
| 20 Ammonia NH ₃ | 31 Tetrahydrothiophene |
| 70 Combustibles LEL | 90 4-20mA Input |

Suffix "YYYY" - Measurement Range

Four digit range; Ex: 0 - 25ppm => 0025

Suffix "Z" - Engineering Units

- 1 Parts per million (ppm)
- 2 Parts per billion (ppb)
- 3 % Lower Explosive Limit (LEL)
- 4 % Volume

Suffix "Q" - Option Boards

- 0 No options
- 1 Alarm board with three 5A form C relays
- 2 RS-485 MODBUS interface
- 3 Isolated 4-20mA output

Note 1: For gas types 10 through 31, order M1 / EC; for gas type 70 order M1/LEL and for gas type 90 order M1/MA

Note 2: Highly reactive gases require removal of stainless steel flame arrestor. Available for non-hazardous areas ONLY!



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Represented by: