GM Series

Single or Dual Channel Gas Detection.

GM100

The GM100 has been designed to be directly connected to a Building Management / Automation System intended to continuously monitor the ambient air for dangerous gas concentrations via the diffusion method. The apparatus is to be installed in non-classified, non-hazardous, permanent locations.
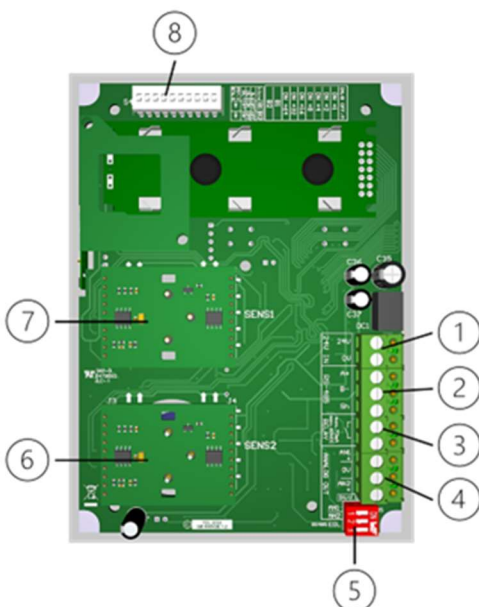
The GM100 features two alarm levels (Low & High), with a configurable audible alarm, and a dry-contact relay to signal external systems i.e. fire alarms, with LED and LCD indications and status, i.e. gas targets, concentrations, alarm, warning, and special conditions. Plug-and-play modular assembly allows for replaceable smart gas sensor modules. In addition, simple, non-intrusive zero and span adjustments.

Key Features

- ✓ Single or dual gas monitoring.
- ✓ Replaceable, plug-and-play smart sensor modules.
- ✓ Non-intrusive calibration
- ✓ One signal relay (1A 60VDC).
- ✓ Modbus RTU or BACnet MS/TP (field selectable).
- ✓ 24V AC/DC power supply.
- ✓ LCD display screen & RGB LED status indication.
- ✓ Configurable audible alarm 85dB.
- ✓ Operating Temperature -20° to 50°C
- ✓ Gas Performance UL2075 (CO & NO2).
- ✓ Excellent response and recovery.
- ✓ Strong anti-interference circuit boards & RoHS compliant.
- ✓ Corrosion-resistant enclosure with optional accessories.
- ✓ Indoor & outdoor use.
- ✓ Coverage 15m radius (CO/NO2)

Circuit Board/Connections

1. Power IN - Nominal 24V AC/DC (12-32V)
2. RS-485 - Modbus RTU or BACnet MS/TP up to 127 units
3. Relay - 1A / 60VDC max signal
4. Analog Output x2 - 0-10V / 4-20mA selectable
5. Analog OP dipswitch - mA current or voltage
6. Replaceable gas sensor #1 - [S1] module
7. Replaceable gas sensor #2 - [S2] module
8. RS 485 config – Protocol / Network Address / Baud Rate

Technical Specification

Mechanical

Material	ABS Flame Retardant UL94 V0
Height	5.95" (151.2mm)
Width	4.37" (111.2mm)
Depth	1.97" (50mm)

Electrical

Power – Low Voltage	Nominal 24V AC/DC (12-32V)
Wiring (RS485)	127 Units

IO

Digital Output *1	Modbus RTU and BACnet MS/TP (field selectable)
Relay Output *1	Dry Contact 1A, 60 VDC

Environmental

Operating Temperature	-4° to 122°F (-20° to 50°C)
Humidity	15 to 90% RH (continuous) 0-99% (intermittent) non-condensing.
Atmospheric Pressure	2000m

User Interface

LED Indications	OK-Power / Alarm Low / Alarm High / Fault / Warning / Calibration
Audible Alarm	Internal >80dB
Button(s)	Silence audible alarm buzzer
Language	English

Certification/Conformance

Safety	UL/CSA/IEC/EN/BS 61010-1
Electromagnetic Compatibility	Directive 2014/30/EU / Regulation 2016 / 50270
FCC	This device complies with part 15 of the FCC Rules, Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Gas Performance	UL 2075 (CO and NO_2)

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