

GM151 Gas Detection Monitor With Bacnet MS/TP & Modbus RTU



Key Features:

- Single, dual and PM10 gas monitoring
- Replaceable, plug-and-play smart sensor modules
- Hinged cover for ease of installation
- Non-intrusive calibration
- Splash guard accessories for improved IP rating
- Modbus RTU or BACnet MS/TP (field selectable)
- 0-10V or 0-20mA output (field selectable)
- 4 x Relay outputs (8A/250V)
- 24V AC/DC or 230V power supply
- Display screen and RGB LED status indication
- Configurable audible alarm – 85dB
- Operating Temperature -4° to 122°F
- Gas Performance UL2075
- Supplied calibrated
- Strong anti-interference circuit boards and RoHS compliant
- Corrosion-resistant enclosure with optional accessories
- Indoor & outdoor use (with additional weatherproof sensor covers)

Product Overview:

The GM Series 151 has been designed as a tri-combined detector including a PM10 sensor. Designed for a wide range of applications, this 24V powered detector with RS485 BACnet MS/TP or Modbus RTU communications offers unparalleled reliability and precision. With customizable parameters accessible on-site, engineers can tailor its configuration and settings to suit the unique needs of each project, minimizing the requirement for additional hardware and streamlining the scope of work for controls contractors to ensure the sequence of operation can be achieved.

The GM Series 151 features two alarm levels, 8A relays, 0-10V & 4-20mA outputs with configurable time delays, a selectable audible alarm, LCD display indicating power, alarm status, gas type, concentration, measurement, address, and fault conditions.

The equipment can be used indoors or outdoors. If used outdoors, choose a sheltered location which is protected from direct sunlight, rain, and other extreme conditions.

Part Codes

GM151- [S1 Gas] – [S2 Gas] – PM10

Gas Selection: Select one (1) for each Gas 1 and Gas 2

Gas Type	Code
No Sensor	Leave Blank
Carbon Monoxide (CO)	CO
Nitrogen Dioxide (NO2)	NO2
Natural Gas (NG)	NG
Hydrogen (H2)	H2
Butane / Propane (LPG)	LPG
Oxygen (O2)	O2
Carbon Dioxide (CO2)	CO2

RS-485 Adjustable Settings

- Alarm 1 & 2 Thresholds (Low/High)
- 4 x Relay – 8A 230V
- Audible Buzzer (On/Off)
- Service/Calibration LED Indication

Splash Guard Option: Order GM-SPL

Option	Code
Splash Guard	GM-SPL



Splash Guard

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Mechanical

Material	ABS Polycarbonate 'FR' Flame Retardant
Length	5.95" (151.13mm)
Width	4.37" (110.99mm)
Depth	1.97" (50mm)
Weight	Approx 0.68kg

Electrical

Power – Low Voltage	24V AC/DC or 230V
Internal Fuse	To be confirmed upon release
Wiring (RS485)	127 Units

IO

Digital Output	BACnet MS/TP or Modbus RTU RS485
Relay Outputs	8A @ 250VAC

Environmental

Operating Temperature	-4° to 122°F (-20°C to 50°C)
Storage Temperature	32° to 86°F (0°C to 30°C)
Humidity	15 to 90% RH (continuous) 0-99% (intermittent)
Atmospheric Pressure	2000ft (610m)
Installation Category	III 24V (UL/CSA/IEC/EN/BS 61010-1)
Pollution Degree	2 (UL/CSA/IEC/EN/BS 61010-1)

User Interface

LCD Display	RGB 16 Character – 2 Lines (32)
LED Indications	OK / Alarm 1 / Alarm 2 / Fault / Calibration
Audible Alarm	Internal >85dB
Button(s)	Silence / Acknowledge Alarm & Reset / Relay / Settings
Language	English

Certification/Conformance

Safety	UL/CSA/IEC/EN/BS 61010-1
Electromagnetic Compatibility	Directive 2014/30/EU / Regulation 2016 / BS 50270
Gas Performance	UL 2075
Sensor Agency Approvals	UL Recognized Component for ANSI/UL-2034, UL-2075

Default Alarm

Gas	AL1	AL1 Type	AL2	AL2 Type	Range
Carbon Monoxide (CO)	25ppm	Rising	100ppm	Rising	10-250ppm
Nitrogen Dioxide (NO2)	0.5ppm	Rising	2ppm	Rising	0.5-10ppm
Natural Gas (NG)	8%LEL	Rising	10%LEL	Rising	3.0-90%LEL
Hydrogen (H2)	8%LEL	Rising	10%LEL	Rising	3.0-90%LEL
Butane / Propane (LPG)	8%LEL	Rising	10%LEL	Rising	3.0-90%LEL
Oxygen (O2)	19.5% V/V	Rising	18.5%/23% v/v	Rising	0-25% v/v
Particulate Matter PM10	31µg/m3	Rising	114µg/m3	Rising	