



GS-5000 Series

Gas Detector and Control System



Overview

The GS-5000 series of gas detectors are designed to continuously send gas measurements to programmable logic devices, ventilation controls and computers.

Applications

- Detection of toxic, refrigerant and combustible gases

Features & Benefits

- Accepts two modules for distinct gases at the same time
- Units can operate in stand-alone mode with 3 adjustable output relays
- Units can also operate as part of a twisted pair network
- Any sensor can be assigned to control alarms and ventilators
- Contains a memory module with the gas type, scale and calibration settings
- Sensors are mounted in a robust water proof enclosure

Model Selection

GS-5000	Gas exhaust system, controller only, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5001	Gas exhaust system, Organic vapors, 0-1000 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5002	Gas exhaust system, Carbon monoxide (CO), 0-100 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5002-250	Gas exhaust system, Carbon monoxide (CO), 0-250 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5014	Gas exhaust system, Diesel, nitrogen dioxide (NO ₂), 0-10 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5002-14	Gas exhaust system, Carbon monoxide & nitrogen dioxide, 100/10 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5016	Gas exhaust system, Hydrogen Sulfide (H ₂ S), 0-50 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5017	Gas exhaust system, Chlorine (CL ₂), 0-10 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5004	Gas exhaust system, Ammonia (NH ₃), 0-250 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5013	Gas exhaust system, HCFC (R22, 401A, 402A, 4408A, 502), 0-1000 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5020	Gas exhaust system, HFC (R134, 404A, 410A, 507), 0-1000 ppm, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5023	Gas exhaust system, Nitrogen (N ₂), Oxygen (O ₂) depletion, 0-50% O ₂ , 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5022	Gas exhaust system, Oxygen (O ₂) leak, 0-50% O ₂ , 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5005	Gas exhaust system, Methane (CH ₄), 0-50% LEL, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5006	Gas exhaust system, Propane (C ₃ H ₈), 0-50% LEL, 4-20mA or 2-10VDC, 3 SPDT relays, LCD
GS-5008	Gas exhaust system, Hydrogen (H ₂), 0-50% LEL, 4-20mA or 2-10VDC, 3 SPDT relays, LCD

Notes:

1. Add a -BN to the end of the above part numbers to have the BACnet MS/TP option with your GS-5000 Series unit.

Sensor Modules

GS-5501	Sensor replacement card, Organic vapors, 0-1000 ppm
GS-5502	Sensor replacement card, Carbon monoxide (CO), 0-100 ppm
GS-5502-250	Sensor replacement card, Carbon monoxide (CO), 0-250 ppm
GS-5514	Sensor replacement card, Diesel, nitrogen dioxide (NO ₂), 0-10 ppm
GS-5516	Sensor replacement card, Hydrogen Sulfide (H ₂ S), 0-50 ppm
GS-5517	Sensor replacement card, Chlorine (CL ₂), 0-10 ppm
GS-5505	Sensor replacement card, Methane (CH ₄), 0-50% LEL
GS-5506	Sensor replacement card, Propane (C ₃ H ₈), 0-50% LEL
GS-5508-1000	Sensor replacement card, Hydrogen (H ₂), 0-1000 ppm
GS-5508	Sensor replacement card, Hydrogen (H ₂), 0-50 LEL
GS-5504	Sensor replacement card, Ammoniac (NH ₃), 0-250 ppm
GS-5513	Sensor replacement card, HCFC (R22, 401A, 402A, 4408A, 502), 0-1000 ppm
GS-5520	Sensor replacement card, HFC (R134, 404A, 410A, 507), 0-1000 ppm
GS-5522	Sensor replacement card, Oxygen (O ₂) leak, 0-50% O ₂
GS-5523	Sensor replacement card, Nitrogen (N ₂) Oxygen depletion, 0-50% O ₂
GS-5525	Sensor replacement card, Relative humidity, 0-100% RH

Product Specifications

Sample frequency, one sensor	Continuous, maximum 1 second
Sample frequency, (type 5000 network)	Maximum 1 second, 1-99 units
Response time to gas	Less than 30 seconds to 90% reading
Type of sensing element	Electro-chemical for toxic gases and ammonia Semiconductor for refrigerants Fuel cell for oxygen
Coverage	Maximum 50 feet each side of sensor, with no obstructions
Sensor Memory Module	Type of gas, scale, sensor calibration points, zero, gain

Output

Analogue output (2)	4-20 ma or 2-10 v (per jumper)
Digital output	GS-5000 network, twisted pair BACnet MS/TP network RS485
Switching capacity	3 relays SPDT, 1/8 HP @ 125 vac 5 amp @ 125 vac non inductive
Delay, relay on (3)	0-999 seconds (16 minutes)
Delay, relay off (run on) (3)	0-999 seconds (16 minutes)

User controls and indicators

LCD display	Gas concentration, ppm or percentage
Alarm indicators 1, 2, 3	LCD
User keyboard	4 push buttons ← → to access and view options ↑↓ to modify options
Security access control	6 key strokes, user set
Internal audio alarm	On level 3, adjustable

Physical Characteristics

Energy consumption	Varies with type of sensor, 150 ma maximum at 24 vac, (5 va)
Supply voltage	16 to 29 vac, 20 to 31 vdc 5 va
Electrical conduit entry	4 X 0.875" two on top, one on bottom, One in rear, all with hermetic seals
Dimensions	7 in. high, 4.5 in. wide, 1.7 in. deep 17.5 cm. high, 11 cm. wide, 4.2 cm. deep
Operating temperature range	-40 to 50 deg C Below -25 deg C the display intensity will diminish

Specifications subject to change without notice.
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