

MGS-400 Gas Detectors

For Safety Compliance in Mechanical Equipment Rooms, Freezers, and Cold Rooms



DESCRIPTION

Bacharach's MGS-400 Gas Detectors makes compliance with mechanical equipment room and refrigeration safety codes simple and easy, saving time and money on equipment and installation. Using the MGS-400 App, users can intuitively use, commission and maintain their gas detection system without the need for specialty training or tools. Pre-calibrated sensor modules simplify maintenance, take minutes to exchange and do not require the use of calibration gas. The MGS-400 sensors can trigger additional audio-visual alarms and act as a standalone gas detection system, or integrate easily into a BMS / BAS or with Bacharach's optional MGS-408 Gas Detection Controller.

FEATURES

Mobile App Interface

Pre-calibrated Sensors

Semi-automated Calibration

Remote Sensor Option

Temperature-Compensated Measurement

Low Temperature Performance

Digital Communications

Analog Outputs

Relay outputs

Audio & Visual Alarms

Multiple Cable Entries and Terminals

BENEFITS

Quick, easy and intuitive commissioning, configuration and maintenance requires no special training. No tools required to set alarm levels and behavior.

Fast and easy sensor maintenance. Eliminates need for calibration gas.

Easy calibration process with mobile app. Generate calibration certificates for documentation.

Locate the sensor element in hard-to-reach areas and the base unit where convenient for electrical and communication wiring (MGS-460)

Mitigates false alarms and optimizes accuracy in refrigeration applications.

Suitable for use in cold rooms and freezers down to -40° F/C.

Integrate with local BMS/BAS via Modbus RTU

For current or voltage output to legacy systems (MGS-450/460)

3 relays available for alarm and fault events to active horn/strobes and ventilation (MGS-450, MGS-460)

On-board alarm notification supports compliance with ASHRAE 15 / EN 378

Quick and easy installation of all wiring; daisy-chain power and digital communications.

For ordering information see the Bacharach website or contact your Bacharach sales manager, technical support, or customer service.



HOW TO CONTACT US:

US Customer Service: +1 724 334 5000
 EU Customer Service: +353 1 284 6388
 CAN Customer Service: +1 905 882 8985

mybacharach.com

FOR MORE INFO:

Scan the QR code to learn more about the MGS-408 and other Bacharach products.



| PRODUCT CONFIGURATIONS | | MGS-410 | MGS-450 | MGS-460 |
|------------------------|---------------------|--|--|--|
| Enclosure Rating | | IP66 | IP41, IP66 | IP66 |
| Configurable Relays | Settings | n/a | SPDT, Low (1), High (2), Fault (3) | |
| | Rating | | Rating 1 A @ 30 VDC | |
| Digital Communications | | Modbus RTU | | |
| Analog Output | Single configurable | n/a | 4 to 20 mA, 0 to 5 V, 0 to 10 V, 1 to 5 V, 2 to 10 V | |
| Sensor | | Integrated | Integrated | Remote |
| Size | | 5.1" × 5.1" × 2.7" (130 × 130 × 68 mm) | IP41: 6.5" × 6.5" × 3.0" (165 × 165 × 77 mm) IP66: 6.5" × 6.5" × 3.4" (165 × 165 × 87 mm) | Base Unit: 6.5" × 6.5" × 3.4" (165 × 165 × 87 mm) Remote Unit: 4.5" × 5.4" × 2.7" (115 × 136 × 68 mm) |
| Weight (Approx) | | 9.2oz (260 g) | 1lb, 1oz (480 g) | 1lb, 11.7oz (758 g) |

| SPECIFICATIONS | | MGS-410 | MGS-450 | MGS-460 |
|--------------------|---|--|---------|---------|
| Gases and Range | HFC's/HFO | 1,000 ppm | | |
| | CO ₂ | 5,000 / 10,000 / 20,000 / 30,000 / 40,000 / 50,000 ppm | | |
| | NH ₃ | 100 / 1,000 / 5,000 / 10,000 / 100% LEL | | |
| | O ₂ | 30 Vol% | | |
| | CO | 500 ppm | | |
| | Combustible - Semiconductor (R-290, R-600, R-50, R-600a, HC-12a, R-717) | 5,000 ppm | | |
| | Combustible - NDIR (R-600, R-50, R-290) | 100% LEL | | |
| | Combustible - Catalytic (R-600, R-50, R-290, R-717) | 100% LEL | | |
| | NO ₂ | 20 ppm | | |
| Status Indicator | | Single Tri-color LED (green, red, orange) | | |
| Audio Alarm | | Buzzer, 72db @ 10cm | | |
| Power | | 24V AC or DC (auto selecting), 4W (max) | | |
| Approvals | | CE, UL / CSA / IEC EN 61010-1 | | |
| Ambient Conditions | Temperature | | | |
| | Semiconductor | -40 to 122°F / -40 to +50°C | | |
| | Electrochemical | NH3 100 / 1,000 ppm: -40 to 40°C NH3 5,000 ppm: -20 to 40°C CO 500 ppm: -40 to 50°C NO2 20 ppm: -20 to 40°C O2 30% Volume: -20 to 50°C | | |
| | Infrared | -40 to 122°F / -40 to +50°C | | |
| | Catalytic Bead | -40 to 122°F / -40 to +50°C | | |
| | Humidity | 5 to 90 % RH, non-condensing | | |
| | Pressure | 23.6 to 32.5 inch Hg / 800 to 1,100 mbar | | |

