MGS-400 Gas Detectors

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

MSA
The Safety Company

MGS-410

Integrated audio / visual alarms

MGS-450

Multiple cable glands

Remote sensor connected via RJ45 cable (up to 20 m)

MGS-460

DESCRIPTION

MSA 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 MSA Bacharach's optional MGS-408 Gas Detection Controller.

Features	Benefits
Mobile App Interface	Quick, easy and intuitive commissioning, configuration and maintenance requires no special training. No tools required to set alarm levels and behavior.
Pre-calibrated Sensors	Fast and easy sensor maintenance. Eliminates need for calibration gas.
Semi-automated Calibration	Easy calibration process with mobile app. Generate calibration certificates for documentation.
Remote Sensor Option	Locate the sensor element in hard-to-reach areas and the base unit where convenient for electrical and communication wiring (MGS-460)
Temperature-Compensated Measurement	Mitigates false alarms and optimizes accuracy in refrigeration applications
Low Temperature Performance	Suitable for use in cold rooms and freezers down to -40° F/C.
Digital Communications	Integrate with local BMS/BAS via Modbus RTU
Analog Outputs	For current or voltage output to legacy systems (MGS-450/460)
Relay outputs	3 relays available for alarm and fault events to active horn/strobes and ventilation (MGS-450, MGS-460)
Audio & Visual Alarms	On-board alarm notification supports compliance with ASHRAE 15 / EN 378
Multiple Cable Entries and Terminals	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.

SAFEGUARDING
PEOPLE, PLACES, & THE **PLANET**

MGS-400 Gas Detectors

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		
	O2	30 Vol%		
	CO	500 ppm		
	Combustible - Semiconductor (R-290, R-600, R-50, R-600a, 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		

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit **MSAsafety.com/offices**.