



## MGS-450 Gas Detector

### for Safety Compliance in Refrigeration Applications

#### FEATURES

Mobile App Interface

Simple Configuration via App

Pre-calibrated Sensors

Semi-automated Calibration

Temperature-compensated Measurement

Analog and Digital Communications

On-board Relays

Audible and Visual Alarms

Multiple Cable Entries and Terminals

Low-temperature Performance

#### BENEFITS

Quick, easy and intuitive commissioning, configuration and maintenance requires no special training

No tools required to set alarm behavior and alarm levels

Save time and money on maintenance procedures

Easy process with no potentiometers or volt meters

Mitigates false alarms and optimizes accuracy in refrigeration applications

Integrates with BMS / BAS control systems via Modbus and / or analog outputs

Trigger additional alarm beacons and mechanical ventilation in the event of a refrigerant leak

Comply with ASHRAE 15 / EN 378 - no additional hardware

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

Suitable for use in all refrigeration applications from machinery rooms to freezers

Refrigerant Gas Detector with Remote Sensor for Halogenated and Natural Refrigerants with Digital and Analog Communications

#### DESCRIPTION

Bacharach's MGS-450 Gas Detector makes compliance with 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-450 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.

#### 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

#### FOR MORE INFO:

Scan the QR code to learn more about the MGS-450 and other Bacharach products.



## TECHNICAL DATA

PRODUCT ATTRIBUTES	DESCRIPTION		DEFINITION
<b>Gases and Ranges</b>	Refrigerants		1,000 ppm
	CO <sub>2</sub>		5,000 / 10,000 / 20,000 / 30,000 / 40,000 / 50,000 ppm
	NH <sub>3</sub>		100 / 1,000 / 5,000 / 100% LEL
	O <sub>2</sub>		30 Vol%
	CO		500
	Combustible gases - Semiconductor (R-290, R-600, R-50, R-600a, HC-12a, R-717)		5,000 ppm
	Combustible gases - NDIR (R-600, R-50, R-290)		100% LEL
	Combustible gases - Catalytic (R-600, R-50, R-290, R-717)		100% LEL
	NO <sub>2</sub>		20 ppm
<b>Status Indicator</b>	Single tri-color LED (green, red, orange)		
<b>Buzzer</b>	72dB @ 10 cm		
<b>Output</b>	Single configurable analog output		4 to 20 mA, 0 to 5 V, 0 to 10 V, 1 to 5 V, 2 to 10 V
	Digital		Modbus RTU via RS 485
<b>Power Supply</b>	24V AC or DC (auto selecting), 4W (max)		
<b>Relay</b>	Three relays, SPDT, fixed low / high fault alarms		
	Rating 2 A @ 30 VDC		
<b>Enclosure</b>	IP41, IP66		
<b>Size (W×H×D) Approx.</b>	IP41		6.5" × 6.5" × 3.0" (165 × 165 × 77 mm)
	IP66		6.5" × 6.5" × 3.4" (165 × 165 × 87 mm)
<b>Weight Approx.</b>	1lb, 1oz (480 g)		
<b>Approvals</b>	CE, UL / CSA / IEC EN 61010-1		
<b>Ambient Conditions</b>	Temperature	Semiconductor	-40 to 122°F / -40 to +50°C
		Electrochemical	NH <sub>3</sub> 100 / 1,000 ppm: -40 to 40°C
			NH <sub>3</sub> 5,000 ppm: -20 to 40°C
			CO 500 ppm: -40 to 50°C
			NO <sub>2</sub> 20 ppm: -20 to 40°C
		O <sub>2</sub> 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		

For ordering information, visit us at [www.mybacharach.com](http://www.mybacharach.com) or contact your Bacharach sales manager.



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[mybacharach.com](http://mybacharach.com) | [help@mybacharach.com](mailto:help@mybacharach.com)