

# MGS-410 Gas Detector

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



Integrated audio /  
visual alarms

## DESCRIPTION

Bacharach's MGS-410 Gas Detector makes compliance with mechanical equipment rooms 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-410 sensor can integrate easily into a BMS / BAS or with Bacharach's optional MGS-408 or MGS-402 Gas Detection Controllers.

## FEATURES

**Mobile App Interface**

**Pre-calibrated Sensor**

**Semi-automated Calibration**

**Low Temperature Performance**

**Digital Communications**

**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.

Mitigates false alarms and optimizes accuracy in refrigeration applications. Suitable for use in cold rooms and freezers down to -40° F/C.

Integrate with third-party BMS/BAS via Modbus RTU.

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

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

## 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:

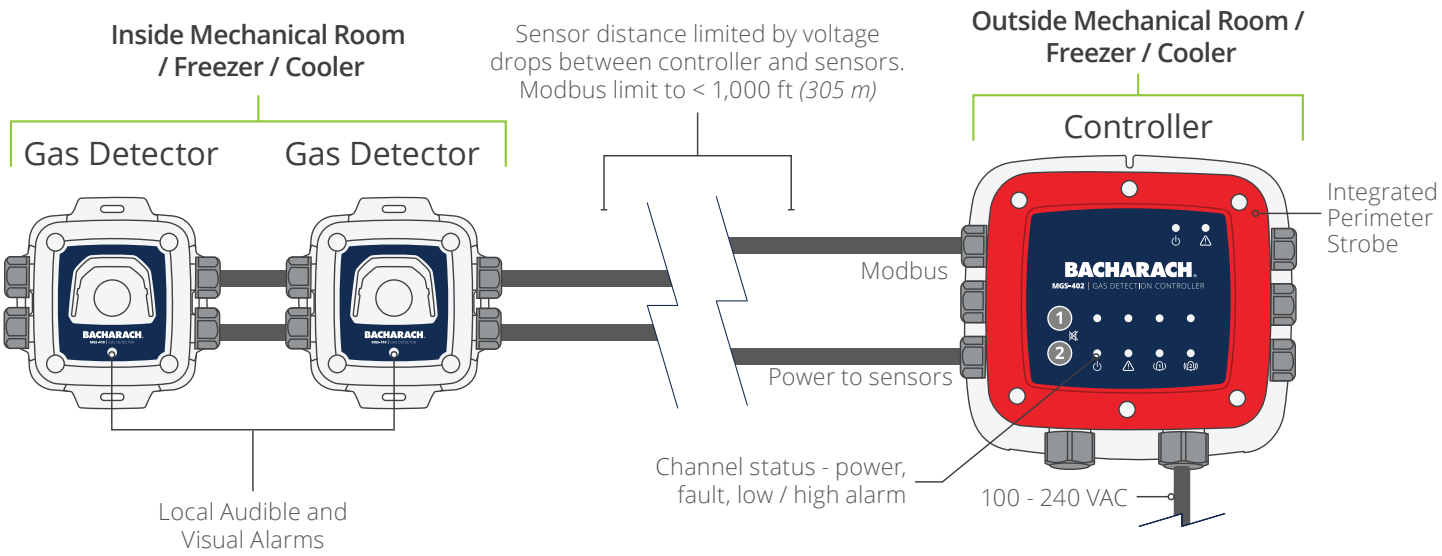
Scan the QR code to learn more about the MGS-410 and other Bacharach products.



[mybacharach.com](http://mybacharach.com)

PRODUCT CONFIGURATIONS	
Enclosure Rating	IP66
Digital Communications	Modbus RTU
Sensor	Integrated
Size	5.1" × 5.1" × 2.7" (130 × 130 × 68 mm)
Weight (Approx)	9.2oz (260 g)

SPECIFICATIONS		
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	Humidity	5 to 90 % RH, non-condensing
	Pressure	23.6 to 32.5 inch Hg / 800 to 1,100 mbar



MKTG00198 | Rev0 | Marketing Communications | Subject to Modifications | © Bacharach Inc



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# MGS-410 Sensor Specifications

PART NUMBER	REPLACEMENT SENSOR	TARGET GAS	SENSOR TECHNOLOGY <sup>1</sup>	FULLSCALE RANGE	ALARM RANGE	LOW ALARM	HIGH ALARM	ACCURACY (% OF RANGE)	TEMPERATURE RANGE
6302-0003	6302-9003	O <sub>2</sub>	EC	30% Volume	4.5%-30% Vol	19.5% Vol	23% Vol	±5%	-20°C to 50°C
6302-0026	6302-9026	NH <sub>3</sub>	EC	100ppm	15-100ppm	50ppm	90ppm	±5%	-40°C to 40°C
6302-0028	6302-9028	NH <sub>3</sub>	EC	1,000ppm	150-1,000ppm	500ppm	900ppm	±5%	-40°C to 40°C
6302-0029	6302-9029	NH <sub>3</sub>	EC	300ppm	10-300ppm	25ppm	150ppm	±5%	-40°C to 40°C
6302-0037	6302-9037	NH <sub>3</sub>	EC	5,000ppm	750-5,000ppm	2,500ppm	4,500ppm	±5%	-20°C to 40°C
6302-0040	6302-9040	CO	EC	500ppm	20-500ppm	25ppm	100ppm	±5%	-40°C to 50°C
6302-0041	6302-9041	NO <sub>2</sub>	EC	20ppm (20,000 ppb)	3,000-20,000ppb	5,000ppb	10,000ppb	±5%	-20°C to 40°C
6302-0052	6302-9052	R-600	IR	100% LEL (1.4% Vol)	15-100% LEL	50% LEL	90% LEL	±5%	-40°C to 50°C
6302-0053	6302-9053	R-50	IR	100% LEL (4.4% Vol)	15-100% LEL	50% LEL	90% LEL	±5%	-40°C to 50°C
6302-0054	6302-9054	R-290	IR	100% LEL (1.7% Vol)	15-100% LEL	50% LEL	90% LEL	±5%	-40°C to 50°C
6302-0069	6302-9069	NH <sub>3</sub>	CT	0-3% Volume	1 - 3.0% Vol	1% Vol	2% Vol	±5%	-40°C to 50°C
6302-0070	6302-9070	NH <sub>3</sub>	CT	0-100% LEL (15% Vol)	15 - 100% LEL	25% LEL	50% LEL	±5%	-40°C to 50°C
6302-0090	6302-9090	CO <sub>2</sub>	IR	5,000ppm	750-5,000ppm	2,500ppm	4,500ppm	±5%	-40°C to 50°C
6302-0091	6302-9091	CO <sub>2</sub>	IR	10,000ppm	1,500-10,000ppm	5,000ppm	9,000ppm	±5%	-40°C to 50°C
6302-0092	6302-9092	CO <sub>2</sub>	IR	20,000ppm	3,000-20,000ppm	10,000ppm	18,000ppm	±5%	-40°C to 50°C
6302-0093	6302-9093	CO <sub>2</sub>	IR	30,000ppm	4,500-30,000ppm	15,000ppm	27,000ppm	±5%	-40°C to 50°C
6302-0094	6302-9094	CO <sub>2</sub>	IR	40,000ppm	6,000-40,000ppm	20,000ppm	36,000ppm	±5%	-40°C to 50°C
6302-0095	6302-9095	CO <sub>2</sub>	IR	50,000ppm	7,500-50,000ppm	25,000ppm	45,000ppm	±5%	-40°C to 50°C
6302-0101	6302-9101	R-134a	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0103	6302-9103	R-404A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0105	6302-9105	R-407A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0107	6302-9107	R-410A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0109	6302-9109	R-22	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0111	6302-9111	R-507A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C

<sup>1</sup> EC = Electrochemical Cell, IR = Infrared, CT = Catalytic Bead, SC = Metal-Oxide Semiconductor



PART NUMBER	REPLACEMENT SENSOR	TARGET GAS	SENSOR TECHNOLOGY <sup>1</sup>	FULLSCALE RANGE	ALARM RANGE	LOW ALARM	HIGH ALARM	ACCURACY (% OF RANGE)	TEMPERATURE RANGE
6302-0123	6302-9123	R-407C	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0126	6302-9126	R-407F	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0152	6302-9152	HFO1234ze	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0155	6302-9155	R-32	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0156	6302-9156	R-448A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0157	6302-9157	R-452A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0158	6302-9158	R-513A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0159	6302-9159	R-434A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0160	6302-9160	R-450A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0161	6302-9161	HFO1234yf	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0163	6302-9163	R-452B	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0164	6302-9164	R-454A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0165	6302-9165	R-422A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0166	6302-9166	R-422D	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0167	6302-9167	R-427A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0169	6302-9169	R-449A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0170	6302-9170	R-454C	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0171	6302-9171	R-454B	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0172	6302-9172	R-455A	SC	1,000ppm	150-1,000ppm	500ppm	900ppm	-10%/+15%	-40°C to 50°C
6302-0301	6302-9301	R-290	SC	5,000ppm	750-5,000ppm	800ppm	2,500ppm	-10%/+15%	-40°C to 50°C
6302-0310	6302-9310	R-290	SC	2,500ppm	400-2,500ppm	1,000ppm	2,000ppm	-10%/+15%	-40°C to 50°C

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