

MGS-550 Gas Detector

For Industrial Applications



DESCRIPTION

Bacharach's MGS-550 leak detector combines electrochemical, semiconductor, catalytic bead and infrared sensors into one platform to support leak detection for the new low GWP (*Global Warming Potential*) refrigerant blends as well as natural refrigerants to enable gas leak detection in the often harsh environments of industrial refrigeration.

The MGS-550 can easily be integrated into any building management system (*BMS*). The Modbus RTU interface allows the user to program and configure the unit remotely through the BMS. Remote access gives complete control to the user when using Modbus. Alternatively, electrical current or volt analog output provides an industry standard reading using 4-20mA.

Having three integrated relays within each instrument reduces the need for having to wire alarm devices back to a central control system. Because of the integrated relays, the Bacharach MGS-550 can be operated as a stand-alone system. Each relay can be individually programmed to trigger alarm devices and actions separately or as a redundant system.

The straightforward menu structure is identical regardless of the type of sensors used, reducing the costs and amount of time for training required upon installation or during maintenance.

Bacharach's MGS-550 offers the flexibility of adding a second sensor at any point in time without the need for any additional controllers. Any sensor can be remotely mounted from the main instrument to a distance of 5 meters or 15 feet. It meets the requirements of EN 378 and ASHRAE 15.

Features

- One or two sensor capability
- Remote sensor capabilities
- Analog and digital interface
- On-board relays
- Magnetic wand
- Status indicator and LED display
- Optional MGS-408 Controller

Benefits

- Detects two gases and/or in two locations with one instrument
- Flexible placement in hard to reach areas
- Ease of integration with multiple control devices
- Connects to local alarm devices for saving costs on installation
- Non-intrusive configuration and calibration
- Provides at-a-glance status overview and comprehensive direct user interface
- Create an independent, centralised alarm system with up to 6 gas detectors

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Specifications	Description		
GASES AND RANGE	Refrigerants	1,000 / 10,000 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 ppm / 100% LEL	
	O ₂	30Vol%	
	CO**	500 / 1,000 ppm	
	Combustible Gases	5,000 ppm / 100% LEL	
	C ₂ H ₄	2,000 ppm	
	NO ₂ ***	20 ppm	
REPEATABILITY		±5% of applied gas concentration	
DISPLAY		Red 5-digit, 7-segmented LED and green status LEDs	
OUTPUT	Analog	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	
POWER SUPPLY		19.5 to 28.5 VDC or 24 VAC ±20%; 3- or 4-wire	
RELAY		Three relays, SPDT, user assignable	
		Rating 2 A @ 30 VDC NO, 0.5 A @ 125 VDC, 0.25 A @ 250 VAC, 30 W, resistive load	
ENCLOSURE	General Purpose	ABS IP66 with four M20 × 1.5 cable glands	
SIZE (W × H × D)	General Purpose	8.3” × 8.9” × 3.4” / 210 × 225 × 85 mm	
WEIGHT APPROX		GP: 2 lbs / 1 kg; XP: 3.5 lbs / 1.6 kg	
APPROVALS		CE, UL / CSA / IEC EN 61010-1	
AMBIENT CONDITIONS	Temperature	Semiconductor	-40 to 122°F / -40 to +50°C
		Electrochemical	-5 to 122°F / -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	

* NH₃ available as low temperature version -40°F / 40°C (not for 5,000 ppm Electrochemical sensor)

** IP66 rated; not available in XP enclosure

*** Not IP66 rated; not available in XP enclosure



Equipamientos Analíticos S.A

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