Industrial Refrigerant Gas Detector

MGS-550

FEATURES	BENEFITS
One or two sensor capability	Detects two gases and/or in two locations with one instrument
Remote sensor capabilities	Flexible placement in hard to reach areas
Analog and digital interface	Ease of integration with multiple control devices
On-board relays	Connects to local alarm devices for saving costs on installation
Magnetic wand	Non-intrusive configuration and calibration
Status indicator and LED display	Provides at-a-glance status overview and comprehensive direct user interface
Optional MGS Controler available	Create an independent, centralised alarm system with up to 6 gas detectors

Enabling Gas Leak Detection in Industrial Refrigeration 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.

5 DIGIT LED DISPLAY

DUAL SENSOR CAPABILITY

TECHNICAL DATA

INDUSTRIAL REFRIGERATION

PRODUCT ATTRIBUTES	DESCRIPTION		DEFINITION
Gases and Ranges	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_2H_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 x 1.5 cable glands
	Rugged, Explosion-Proof Certified****		Aluminum with four M20 x 1.5 hubs
Size (WxHxD) Approx	General purpose		8.3" x 8.9" x 3.4" / 210 x 225 x 85 mm
	Rugged, Explosion-Proof Certified****		4.9" x 7.5" x 3.5" / 125 x 190 x 90 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	

* NH_3 available as low temperature version -40°F / 40°C (not for 5,000 ppm Electrochemical sensor)

** IP66 rated; not available in XP enclosure

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**** MGS-550 is not approved as an explosion-proof product and should NOT be installed in hazardous locations