



## Infrared Refrigerant Gas Transmitter **MGS-250 IR**



**Ideal for Supermarkets/Convenience Stores, Commercial Chiller Plants, Food Storage/Processing Facilities, Wineries, Schools and Hospitals, Maintenance Facilities**

### Features & Benefits:

- Long-life, Non-Dispersive Infrared (NDIR) sensor allows for accurate low-level leak detection
- Detects all refrigerants (CFC, HCFs, HCFC, HFO's), including HFO1234YF, HFO1234ZE, R410a & R22
- Fast-responding, refrigerant-specific sensor with no cross interferences to other gases
- No field calibrations required
- Modbus RTU interface to connect to BAS/BMS systems and on-board alarm relay
- User selectable analog output: 4-20 mA, 0-5V, 1-5V, 0-10V, 2-10V
- Bright, alpha-numeric LED real-time display with on-board audible and visual alarms

### Accurate, Economical Low-Level Leak Detection

Bacharach's new MGS-250 Infrared Refrigerant Gas Transmitter is the leader in performance and flexibility at an economical price. There are two versions available - a cost-effective broadband sensor used for gross leak detection or gas-particular versions that are even more distinct, pre-calibrated and characterized for response to specific refrigerants. Its simple-to-use interface gives the user the ability to set all parameters and outputs without opening the unit, moving jumpers, using multimeters or adjusting potentiometers.

The MGS-250 family is a cost effective solution for detecting a variety of refrigerants without the limitations posed by solid-state sensor technologies. The long-life, proprietary NDIR infrared sensor allows for accurate low-level leak detection (0-3,500 ppm), delivering up to 5-7 years of maintenance-free operation without the need for costly annual gas calibrations. Infrared sensing technology makes the MGS-250 immune to cross sensitivities to combustible and toxic gas as well as changes in temperature and humidity. The unit has an alpha-numeric LED display to show constant real-time readings, an on-board LED indicator for when the sensor is in an alarm state, and an audible alarm to alert personnel in the area that levels have exceeded the desired limit. An optional protective splash guard is available for use in areas with high water spray such as food and beverage facilities or chiller rooms.

## MGS-250 Technical Specifications

<b>Sensor:</b>	Long-life Non Dispersive Infrared (NDIR); 5-7 year life
<b>Refrigerants Detected:</b>	Broadspectrum: CFC, HFCs, HCFC, HFOs; Specific: R22, R123, R134a, R404a, R407a, R407c, R407f, R422a, R422d, R427a, R507, HFO-1234YF, HFO-1234ZE
<b>Range:</b>	0-3,500 ppm
<b>Power Supply:</b>	24 VDC, 24 VAC 50/60 Hz, 2.5 W max
<b>Power Monitoring:</b>	Green LED
<b>Display:</b>	Red 4-digit alpha-numeric LED display
<b>Visual Alarm:</b>	Red 4-digit LED display
<b>Audible Alarm:</b>	Buzzer (audible alarm), enable/disable
<b>Fault Monitoring:</b>	Fault codes presented to user
<b>Analog Outputs:</b>	4-20 mA; 0-5 V; 0-10 V; 1-5 V; 2-10 V
<b>Relay:</b>	1 relay rated 1 A @ 24 VAC/VDC (0.5A, 125V AC UL rating)
<b>Communication:</b>	Modbus RTU over RS-485
<b>Baud rate:</b>	9,600 or 19,200 (selectable)
<b>Start bits:</b>	1
<b>Data bits:</b>	8
<b>Parity:</b>	None, odd, even (programmable)
<b>Stop bits:</b>	1 or 2, programmable
<b>Retry time:</b>	500 ms (min time between retries)
<b>End of msg:</b>	Silent 3-5 characters
<b>Alarm Delay:</b>	Selectable; 0 to 15 minutes
<b>Response Time, T90:</b>	5 minutes
<b>Temperature Range:</b>	-22° to 104° F (-30° to 40° C)
<b>Humidity Range:</b>	5-90% relative humidity, non-condensing; 0-10,000 ft. altitude
<b>Approvals:</b>	CE, UL/CSA/IEC/EN 61010-1
<b>Dimensions &amp; Weight:</b>	4.0" x 5.5" x 1.5" 6.3 oz.   102 mm x 140 mm x 37 mm 180 g

## MGS-250 Common Configurations

<b>6401-0500</b>	MGS-250, Infrared Halocarbon Detector, Broadband Version
<b>6401-0501</b>	MGS-250, Infrared R22 Detector
<b>6401-0502</b>	MGS-250, Infrared R123 Detector
<b>6401-0503</b>	MGS-250, Infrared R134a Detector
<b>6401-0504</b>	MGS-250, Infrared R404a Detector
<b>6401-0505</b>	MGS-250, Infrared R407a Detector
<b>6401-0506</b>	MGS-250, Infrared R407c Detector
<b>6401-0507</b>	MGS-250, Infrared R407f Detector
<b>6401-0508</b>	MGS-250, Infrared R410a Detector
<b>6401-0509</b>	MGS-250, Infrared R422a Detector
<b>6401-0510</b>	MGS-250, Infrared R422d Detector
<b>6401-0511</b>	MGS-250, Infrared R427a Detector
<b>6401-0512</b>	MGS-250, Infrared R507 Detector
<b>6401-0513</b>	MGS-250, Infrared HFO1234YF Detector
<b>6401-0514</b>	MGS-250, Infrared HFO1234ZE Detector

## MGS-250 Accessories / Replacement Parts

<b>6900-0001</b>	Splash / Protective Shield (for use in spray down areas)
<b>6400-0014</b>	MGS-250 IR, Replacement Mounting Base
<b>6400-0015</b>	MGS-250, Infrared Halocarbon Replacement Detector, Broadband
<b>6400-0016</b>	MGS-250, Infrared R22 Replacement Detector
<b>6400-0017</b>	MGS-250, Infrared R123 Replacement Detector
<b>6400-0018</b>	MGS-250, Infrared R134a Replacement Detector
<b>6400-0019</b>	MGS-250, Infrared R404a Replacement Detector
<b>6400-0020</b>	MGS-250, Infrared R407a Replacement Detector
<b>6400-0021</b>	MGS-250, Infrared R407c Replacement Detector
<b>6400-0022</b>	MGS-250, Infrared R407f Replacement Detector
<b>6400-0023</b>	MGS-250, Infrared R10a Replacement Detector
<b>6400-0024</b>	MGS-250, Infrared R422a Replacement Detector
<b>6400-0025</b>	MGS-250, Infrared R422d Replacement Detector
<b>6400-0026</b>	MGS-250, Infrared R427a Replacement Detector
<b>6400-0027</b>	MGS-250, Infrared R507 Replacement Detector
<b>6400-0028</b>	MGS-250, Infrared HFO1234YF Replacement Detector
<b>6400-0029</b>	MGS-250, Infrared HFO1234ZE Replacement Detector

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