



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, HFCs, HCFC, HFO's), including HF01234YF, HF01234ZE, 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 mulitmeters 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

Sensor: Long-life Non Dispersive Infrared (NDIR); 5-7 year life

Refrigerants Detected: Broadspectrum: CFC, HFCs, HCFC, HFOs; Specific: R22, R123, R134a, R404a, R407a, R407a, R407f, R422a, R422d, R427a, R507, HF0-1234YF, HF0-1234ZE

Range: 0-3,500 ppm

Power Supply: 24 VDC, 24 VAC 50/60 Hz, 2.5 W max

Power Monitoring: Green LED

Display: Red 4-digit alpha-numeric LED display

Visual Alarm: Red 4-digit LED display

Audible Alarm:
Buzzer (audible alarm), enable/disable
Fault Monitoring:
Fault codes presented to user

Analog Outputs: 4-20 mA; 0-5 V; 0-10 V; 1-5 V; 2-10 V

Relay: 1 relay rated 1 A @ 24 VAC/VDC (0.5A, 125V AC UL rating)

Relay: 1 relay rated 1 A @ 24 VA
Communication: Modbus RTU over RS-485

Baud rate: 9,600 or 19,200 (selectable)

Start bits: 1
Data bits: 8

Parity: None, odd, even (programmable)

Stop bits: 1 or 2, programmable

Retry time: 500 ms (min time between retries)

End of msg: Silent 3-5 characters
Selectable; 0 to 15 minutes

Alarm Delay: Selectable
Response Time, T90: 5 minutes

Temperature Range: -22° to 104° F (-30° to 40° C)

Humidity Range: 5-90% relative humidity, non-condensing; 0-10,000 ft. altitude

Approvals: CE, UL/CSA/IEC/EN 61010-1

Dimensions & Weight: 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

6401-0500	MGS-250, Infrared Halocarbon Detector, Broadband Version
6401-0501	MGS-250, Infrared R22 Detector
6401-0502	MGS-250, Infrared R123 Detector
6401-0503	MGS-250, Infrared R134a Detector
6401-0504	MGS-250, Infrared R404a Detector
6401-0505	MGS-250, Infrared R407a Detector
6401-0506	MGS-250, Infrared R407c Detector
6401-0507	MGS-250, Infrared R407f Detector
6401-0508	MGS-250, Infrared R410a Detector
6401-0509	MGS-250, Infrared R422a Detector
6401-0510	MGS-250, Infrared R422d Detector
6401-0511	MGS-250, Infrared R427a Detector
6401-0512	MGS-250, Infrared R507 Detector
6401-0513	MGS-250, Infrared HF01234YF Detector
6401-0514	MGS-250, Infrared HF01234ZE Detector

MGS-250 Accessories / Replacement Parts

6900-0001	Splash / Protective Shield (for use in spray down areas)
6400-0014	MGS-250 IR, Replacement Mounting Base
6400-0015	MGS-250, Infrared Halocarbon Replacement Detector, Broadband
6400-0016	MGS-250, Infrared R22 Replacement Detector
6400-0017	MGS-250, Infrared R123 Replacement Detector
6400-0018	MGS-250, Infrared R134a Replacement Detector
6400-0019	MGS-250, Infrared R404a Replacement Detector
6400-0020	MGS-250, Infrared R407a Replacement Detector
6400-0021	MGS-250, Infrared R407c Replacement Detector
6400-0022	MGS-250, Infrared R407f Replacement Detector
6400-0023	MGS-250, Infrared R10a Replacement Detector
6400-0024	MGS-250, Infrared R422a Replacement Detector
6400-0025	MGS-250, Infrared R422d Replacement Detector
6400-0026	MGS-250, Infrared R427a Replacement Detector
6400-0027	MGS-250, Infrared R507 Replacement Detector
6400-0028	MGS-250, Infrared HF01234YF Replacement Detector
6400-0029	MGS-250, Infrared HF01234ZE Replacement Detector

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