Infrared Refrigerant Gas Detector
MGS-250

4 DIGIT LED DISPLAY

FEATURES	BENEFITS
Infrared Sensor Technology	Minimise false alarms from cross-interference from other gases, temperature and humidity
On-board Audio-visual Alarms	Enable compliance with regulatory standards, including ASHRAE 15 and EN 378
Modbus, 4-20mA output & alarm relay	Integrate with BMS / control systems to initiate action when a leak is detected
Digital Display Screen	Easy user interface for configuration and set-up
Self-diagnostics	Enhanced troubleshooting capability
Minimal Maintenance Requirements	Low cost of ownership
Optional MGS Controller Available	Create an independent, centralised alarm system with up to 6 gas detectors

Accurate Leak Detection, Minimizing Cross-interference

DESCRIPTION

Bacharach's MGS-250 Infrared Refrigerant Gas Detector delivers accurate, stable and precise refrigerant monitoring. It can be configured as either a broadband sensor used for gross leak detection, or as a gas-specific version that's characterized for precision response to individual refrigerants. The MGS-250 is the economical solution for detecting refrigerants without the limitations posed by solid-state sensor technologies.

Advanced infrared sensing technology makes the MGS-250 immune to cross sensitivities from combustible and toxic gases, as well as changes in temperature and humidity. The infrared sensor provides accurate leak detection and delivers up to 5 to 7 years of virtually maintenance-free operation. The MGS-250 has an alpha-numeric LED display, status indicator, on-board relay, and Modbus via RS485. An audio-visual alarm is included to alert personnel when levels have exceeded the preset limit, enabling compliance with standards including ASHRAE 15 and EN 378.

TECHNICAL SPECIFICATIONS

PRODUCT ATTRIBUTES	DESCRIPTION
Sensor:	Long-life Non Dispersive Infrared (NDIR); 5-7 year life
Refrigerants Detected:	Broadspectrum: CFC, HFCs, HCFC, HFOs; Specific: R-22, R-134a, R-404A, R-407A, R-407C, R-407F, R-422A, R-422D, R-452B, R-507, R-514A R-527A, HFO-1234YF, HFO-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 (0.5 A, 125V AC UL rating)
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
Alarm Delay:	Selectable; 0 to 15 minutes
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, 180g

COMMON CONFIGURATIONS

PART NUMBER	DESCRIPTION
6401-0500	Infrared Halocarbon Detector, Broadband Version
6401-0501	Infrared R-22 Detector
6401-0503	Infrared R-134a Detector
6401-0504	Infrared R-404a Detector
6401-0505	Infrared R-407a Detector
6401-0507	Infrared R-407f
6401-0508	Infrared R-410a
6401-0512	Infrared R-507 Detector
6401-0514	Infrared HFO1234ZE Detector