



Fixed Gas Monitors

## Multi-Zone Gas Leak Monitor

### HGM-MZ • AGM-MZ • CO<sub>2</sub>-MZ



Ideal for Chillers, Grocery Stores, Mechanical Rooms  
Physical Plants, Refrigeration Racks, Walk-In Freezers

### Features & Benefits:

- Proprietary infrared sensing technology virtually eliminates false alarms and extends sensor life
- No calibration required
- Low detection limits enable leaks to be found early reducing energy and refrigerant consumption
- Fastest sampling rate with the longest sampling distance in the industry at 1,200 feet
- Large Graphic LCD for easy set-up and real-time monitoring

Bacharach's Multi-Zone Gas Leak Monitors offer superior performance, flexibility and functionality for low level continuous monitoring of refrigerant gases used in most commercial systems including: Chlorofluorocarbons (CFC), Hydrochlorofluorocarbons (HCFC), Hydrofluorocarbons (HFC), Ammonia (NH<sub>3</sub>) and Carbon Dioxide (CO<sub>2</sub>). These state-of-the-art fixed gas monitors lead the industry in performance, integration capabilities, initial cost and cost of ownership. Capable of detecting more than 38 refrigerant gases, the Multi-Zone system design supports compliance to gas monitoring requirements of ANSI/BSR ASHRAE 15-2007.

## Critical Protection with Flexible Configuration

Bacharach Multi-Zone Monitors provide continuous detection of refrigerant gas levels in up to 16 separate test zones and can be fitted with an optional two channel 4-20 mA current loop board for connection to remote monitoring equipment. Multi-Zone monitors retain a log of previous readings that can be easily accessed for analysis. Four relay contacts are provided that can be programmed to trigger external alarm devices in the event of a system fault, or if a leak (small), spill (medium) or evacuation (large) level of gas is detected, while audible and visual front panel indicators show alarm and fault conditions. With only minor periodic maintenance, such as the occasional replacement of filters, and active diagnostics that continuously check the system for proper operation, Multi-Zone monitors help maintain your equipment efficiency, promote safety and protect the environment.

## Multi-Zone Specifications

<b>Product Type:</b>	The Multi-Zone Gas Leak Monitor is a multiple area monitoring system for low level continuous monitoring of refrigerant gases used in most commercial systems including: CFC, HCFC, HFC, Ammonia and Carbon Dioxide. System design supports compliance to the gas monitoring requirements of ANSI/BSR ASHRAE 15-2007.
<b>Coverage:</b>	4 Point Standard, Expandable to 16 Points in 4 Point Increments
<b>Detector Type:</b>	Single-Pass, Non-Dispersive (NDIR)
<b>Gas Library:</b>	
<b>HGM-MZ</b>	CFC: R11, R12, R113, R114, R502, HFP HFC: R404A (HP62), R407A, R407C (AC9000), R134A, R410A (AZ20), R507 (AZ50) HCFC: R21, R22, R23, R123, R124, R227, R500, R503, R401A (MP39), R402A (HP80), R402 (HP81), R408A, R409A, R508B (SUVA95), R236FA, R125, R245FA, R422A, R422D, R427A Halon: H1301, H2402, H1211 Other: FA188, FC72, N1230, HFO1234YF, R424A, R426A, R427A, R438A
<b>AGM-MZ</b>	Ammonia (NH <sub>3</sub> ), R717
<b>CO<sub>2</sub>-MZ</b>	Carbon Dioxide (CO <sub>2</sub> ), R744
<b>Measuring Range:</b>	
<b>HGM-MZ</b>	All gases 0 to 10,000 ppm
<b>AGM-MZ</b>	Ammonia 25 to 10,000 ppm
<b>CO<sub>2</sub>-MZ</b>	Carbon Dioxide 0 to 8,000 ppm
<b>Accuracy:</b>	
<b>HGM-MZ</b>	±1 ppm ±10% of reading from 0-1,000 ppm (R11, R22, R13: ±10 ppm ±15% of reading 0-1,000 ppm)
<b>AGM-MZ</b>	±10 ppm ±10% of reading from 0-1,000 ppm
<b>CO<sub>2</sub>-MZ</b>	±5 ppm ±5% of reading from 0-1,000 ppm, ±10% of reading from 1,000 to 4,000 ppm, ±15% of reading 4,000 to 8,000 ppm
<b>Temperature Drift:</b>	
<b>HGM-MZ</b>	±0.8% (R134A) of reading per Degrees C between purge cycles
<b>AGM-MZ</b>	1.5 ppm per Degrees C between purge cycles
<b>CO<sub>2</sub>-MZ</b>	Less than 1 ppm per Degrees C between purge cycles
<b>Other Specifications:</b>	
<b>Display Resolution</b>	1 ppm
<b>Dimensions</b>	12.23" x 13.7" x 4.96" (31.0642 cm x 34.798 cm x 12.5984 cm)
<b>Weight</b>	15 lbs (6.80kg)
<b>User Interface</b>	Front panel w/3 indicator lights: Green - Power On, Normal; Yellow - Fault; Yellow Flashing - System Fault; Red/Flashing - point has exceeded alarm set.
<b>Communications</b>	Full 2-way communication with MZ-RD display module or building management system via RS-485 Serial Interface. RS-232C Comm. Port Standard.
<b>Alarms</b>	Four SPDT alarm contacts are provided rated 2A at 250 VAC (Inductive), 5A at 250 VAC (Resistive). Three assigned to ppm level alarms. One assigned to system faults.
<b>Conditioned Signal</b>	Optional Dual 4-20 mA DC isolated outputs. Channel 1=zone area, Channel 2=ppm
<b>System Noise</b>	Less than 40dB at 10 Ft. (3m)
<b>Response Time</b>	5 to 315 seconds – Depending on air line length and number of zones
<b>Sampling Mode</b>	Automatic or Manual (Hold)
<b>Re-Zero</b>	Every 5 minutes or on 0.5 Degree C internal temperature change
<b>Monitoring Distance</b>	1,200 ft. max. (500 ft. for NH <sub>3</sub> ) for combined length of sample and exhaust tubing (each zone)
<b>Power Safety Mode</b>	Fully automatic system reset. All programmed parameters retained
<b>Operating Temp</b>	32° to 122° F (0 to 50° C)
<b>Ambient Humidity</b>	5% to 90% RH Non-condensing
<b>Altitude Limit</b>	6,562 Ft. (2,000 m)
<b>Power</b>	100 to 240 VAC, 50/60 Hz, 20 W
<b>Approvals</b>	UL 61010-1, CAN/CSA 22.2 No. 61010-1; EN61010-1, EN61326, EN14624; CE Mark
<b>Power</b>	100 to 240 VAC, 50/60 Hz, 20 W



## MZ-RD Remote Display

The MZ-RD Remote Display is a Multi-Zone accessory that is placed in an alternate location for the Multi-Zone with access to the diagnostics, communications and control of the unit. The MZ-RD can connect up to four Multi-Zone monitors, expanding zone coverage to 64 separate test zones.

## Multi-Zone Ordering Information

### Multi-Zone Monitors

<b>3015-5043</b>	HGM-MZ Halogen Gas Monitor - 4 Zone
<b>3015-5044</b>	HGM-MZ Halogen Gas Monitor - 8 Zone
<b>3015-5045</b>	HGM-MZ Halogen Gas Monitor - 12 Zone
<b>3015-5046</b>	HGM-MZ Halogen Gas Monitor - 16 Zone
<b>3015-5047</b>	AGM-MZ Ammonia Gas Monitor - 4 Zone
<b>3015-5048</b>	AGM-MZ Ammonia Gas Monitor - 8 Zone
<b>3015-5049</b>	AGM-MZ Ammonia Gas Monitor - 12 Zone
<b>3015-5050</b>	AGM-MZ Ammonia Gas Monitor - 16 Zone
<b>3015-5356</b>	CO <sub>2</sub> -MZ Carbon Dioxide Gas Monitor - 4 Zone
<b>3015-5357</b>	CO <sub>2</sub> -MZ Carbon Dioxide Gas Monitor - 8 Zone
<b>3015-5358</b>	CO <sub>2</sub> -MZ Carbon Dioxide Gas Monitor - 12 Zone
<b>3015-5359</b>	CO <sub>2</sub> -MZ Carbon Dioxide Gas Monitor - 16 Zone
<b>3015-5138</b>	MZ-RD Remote Display

### Multi-Zone Kits

<b>3015-5330</b>	HGM-MZ 4 Zone Monitor with Remote Display
<b>3015-5331</b>	HGM-MZ 8 Zone Monitor with Remote Display
<b>3015-5332</b>	HGM-MZ 12 Zone Monitor with Remote Display
<b>3015-5333</b>	HGM-MZ 16 Zone Monitor with Remote Display
<b>3015-5334</b>	AGM-MZ 4 Zone Monitor with Remote Display
<b>3015-5335</b>	AGM-MZ 8 Zone Monitor with Remote Display
<b>3015-5336</b>	AGM-MZ 12 Zone Monitor with Remote Display
<b>3015-5337</b>	AGM-MZ 16 Zone Monitor with Remote Display
<b>3015-5531</b>	CO <sub>2</sub> -MZ 4 Zone Monitor with Remote Display
<b>3015-5532</b>	CO <sub>2</sub> -MZ 8 Zone Monitor with Remote Display
<b>3015-5533</b>	CO <sub>2</sub> -MZ 12 Zone Monitor with Remote Display
<b>3015-5534</b>	CO <sub>2</sub> -MZ 16 Zone Monitor with Remote Display

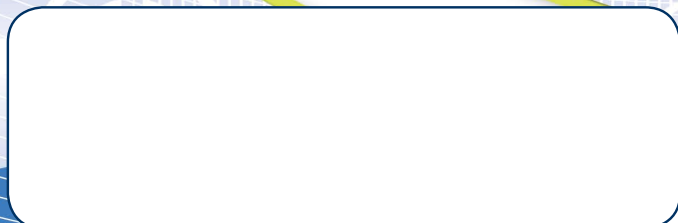
### Multi-Zone Annual Maintenance Kits

<b>3015-5525</b>	4 Zone Monitor (5 line end filters, 1 charcoal filter, 1 hydrophobic, 3 end-of-line water stop filters)
<b>3015-5526</b>	8 Zone Monitor (9 line end filters, 1 charcoal filter, 1 hydrophobic, 3 end-of-line water stop filters)
<b>3015-5527</b>	12 Zone Monitor (13 line end filters, 1 charcoal filter, 1 hydrophobic, 3 end-of-line water stop filters)
<b>3015-5528</b>	16 Zone Monitor (17 line end filters, 1 charcoal filter, 1 hydrophobic, 3 end-of-line water stop filters)

### Multi-Zone Replacement Parts

<b>3015-2906</b>	Multi-Zone End-of-Line Replacement Filter Only
<b>3015-5512</b>	Multi-Zone End-of-Line Water Stop Replacement Filter

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MADE IN THE USA

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