



GAS & SPECIALTY SENSORS

BACHARACH MULTI-ZONE (TUBE) REFRIGERANT MONITOR

HGM-MZ

DESCRIPTION

The **Bacharach Model HGM-MZ Multi-Zone (tube) Refrigerant Gas Monitor** is designed for continuous multi-point monitoring of CFC, HFC, and HCFC refrigerants and halogen gases. The standard unit monitors four discrete points and can be expanded to sixteen point monitoring in four point increments. The unit features 43 pre-programmed refrigerants plus one custom gas. Three adjustable alarm levels with relay output designate leak, spill, and evacuation concentrations. Gas alarms and system fault conditions are indicated by visual and audible alarms. The **Model HGM-MZ** provides a system fault relay output and RS-485 serial interface for integration with a building management system.

The **HGM-MZ Multi-Zone (tube) Refrigerant Gas Monitor** is designed to be used as part of a control system that helps to prevent the formation of a hazardous environment when properly installed and maintained.

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FEATURES

- **Four-point monitoring expandable to sixteen points**
- **43 pre-programmed refrigerants and one custom**
- **East to install sample tube per zone**
- **Up to 1200 ft (365m) distance between measuring point and monitor (tubing not included)**
- **Three alarm levels and system fault alarm with SPDT contacts**
- **Self diagnostics verify operation**
- **100 data point logging**
- **Audible and visual alarm indication with silence button**
- **Local indication of current and peak gas levels**
- **NEMA 1**

SPECIFICATIONS

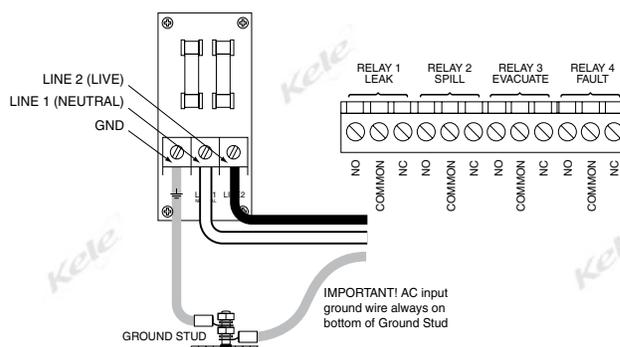
Supply Voltage	100 to 240 VAC @ 21 VA, 50/60 Hz
Accuracy	±1 ppm ±10% reading
Relay Output	3 SPDT alarm relays, 1 fault relay, 250 VAC; 3A; (5% DIF) Dual 4-20mA output (optional)
Sensitivity	1 ppm
Measuring Range	10,000 ppm
Sensing Technology	Single pass, infrared non-dispersive
Gases Detected	R-11, R-12, R21, R-22, R-23, R-113, R-114, R-123, R-124, R-125, R-134a, R-227, R-236FA, R-245FA, R-401a, R-402a, R-402b, R-404a, R-407a, R-407c, R-408a, R-409a, R-410a, R-422a, R-422d, R-427a R-500, R-502, R-503, R-507, R-508b, H-1211, H-1301, H-2402, N-1230, FA188, FC72, HFP
Response Time	5 to 120 seconds depending on sample tube length
Warm Up Time	15 minutes
Coverage	Monitoring distance: 1200 ft (365m) maximum per zone
Communication	MODBUS Standard, Optional: LON, N2 and BACnet
Operating Temperature	32° to 122° F (0° to 50°C)
Operating Humidity	5% to 90% RH (noncondensing)
Enclosure Rating	NEMA 1
Dimensions	12.2"L x 13.7"H x 5.0"D (31 x 35 x 12.7 cm)
Weight	
MZ	15 lb (6.8 Kg)
MZ-8	18 lb (8.2 Kg)
MZ-12	20 lb (9.1 Kg)
MZ-16	22 lb (10.0 Kg)
Approvals	MET LABS #E113096 per UL 61010-1, CSA C2.2. No. 61010-1, CE
Warranty	2 years



INSTALLATION

The monitor should be located outside the mechanical room and readily accessible for verification and servicing. The end of the sample tube should be located as close as possible to the source of a potential leak.

WIRING



ORDERING INFORMATION

MODEL	DESCRIPTION
HGM-MZ	Multi zone refrigerant monitor (4-zone)
HGM-MZ-8	Multi zone refrigerant monitor (8-zone)
HGM-MZ-12	Multi zone refrigerant monitor (12-zone)
HGM-MZ-16	Multi zone refrigerant monitor (16-zone)

RELATED PRODUCTS

3015-5152	Dual 4-20mA output board
3015-5171	Four zone expansion kit*
HGM-RD	Remote display
HGM-LON	Lonworks Communication Adapter
HGM-N2	Metasys N2 Communication Adapter
NIOSHSCBA-WC	Self-contained breathing apparatus kit with SCBA-WALCASE wall case
UCK-1	Universal calibration kit for non-corrosive gases (N2, CO2, CH4, H2, O2, CO, and refrigerants)
3015-5705	BACnet Communication Adapter
3015-3411	Line end filters (4)
Calibration Gases	CO, CO2, NO2, O2, CH4, NH3, N2, H2S, H2, and Refrigerants (See calibration page)
T-101	Tubing
*NOTE: Must order 3015-3411 filter kit.	