



Bacharach® Multi-Zone Refrigerant Gas Monitor

Monitoring for emissions, reduction, and safety compliance.

THE MOST TRUSTED NAME IN REFRIGERANT LEAK DETECTION

DETECT SMALL LEAKS BEFORE THEY CAUSE BIG PROBLEMS



MSA Bacharach® Multi-Zone

The Multi-Zone delivers the best refrigerant monitoring available, with industry-leading MDL of 1 ppm for halogenated gases, the fastest sampling frequency and the widest range of refrigerants accurately detected. The large graphic LCD display and LED status indicators provide a system-wide overview at a glance.

The Multi-Zone enhances effective refrigerant management, detecting leaks early to enable cost savings by reducing refrigerant recharge, enhancing energy efficiency and reducing risk of refrigeration failure and produce loss. A variety of communication interfaces are available, including Modbus, BACnet and LonWorks, allowing easy integration into BMS / BAS systems and remote monitoring solutions.



1ppm Minimum Detection Level (MDL)

- Industry-leading 1ppm Minimum Detectable Level (MDL) identifies leaks early to mitigate refrigerant loss.
- Proprietary infrared (NDIR) sensor accurately detects 60+ different refrigerants, including CFCs, HFCs, HCFCs, HFOs and natural refrigerants.
- Measurement unaffected by cross contamination from other gases and/or changes to temperature or humidity.
- Monitors also available for carbon dioxide (CO₂) and ammonia (NH₃).

Complete Solution for Emissions Reduction

Step 1

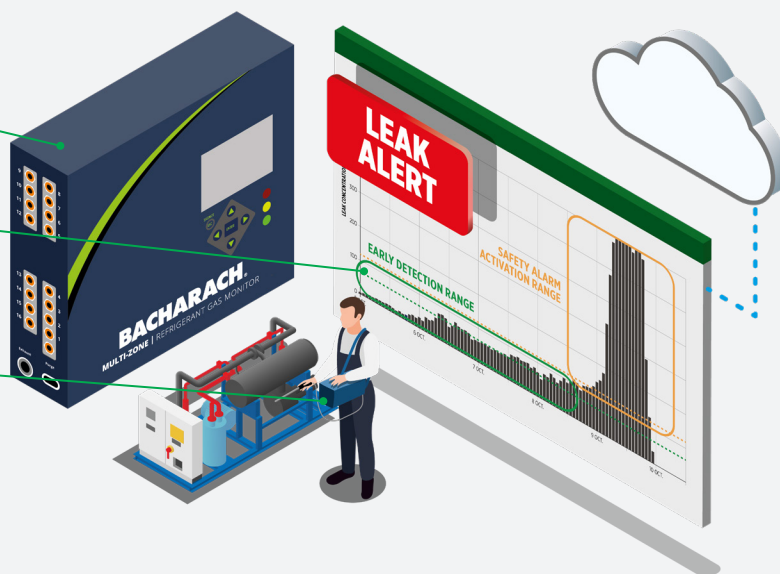
The Multi-Zone detects a leak.

Step 2

The Parasense Platform alerts the facility managers.

Step 3

A technician pinpoints the leak with the PGM-IR, enabling a fast repair.



Site-wide Leak Detection

- Industry-leading sampling times/distances with high performance pump (up to 1,200 ft/365 m).
- Maintains performance in temperature as cold as -40°F (sample point).
- Capable of monitoring multiple refrigerants with a single detection system.



Up to 48 Sample Points

- Multi-Zone units available providing low level leak detection for 4, 8, 12 and 16 zones.
- Plitter kits are available to expand a single zone feed by up to 3 times, allowing up to 48 sample points in total for the 16 zone system.

Specifications

Sensor Channels	4 to 16
Sensitivity / Minimum Detection Level	Refrigerants: 1 ppm, Ammonia: 10ppm, CO2: 10 ppm
Enclosure Rating	General Purpose
Analog Communications	4 to 20 mA (optional)
Digital Communications	Modbus RTU via RS 485
Buzzer	80 dB @ 10 cm
Product Dimensions (L x W x H)	13.7" x 12.3" x 5" (350 mm x 315 mm x 130 mm)
Product Weight	15 lbs. (6.8 kg)
Sensor Type	NDIR
Power	120 - 240 VAC, 50 / 60 Hz Input
Expected Sensor Service Life	10 Years
Approvals	CE, UL, CSA, EN 61010-1, EN 61326, EN 378-3:2018, EN 14624
Warranty	2 Years

Refrigerant leaks impact:



Related Products



Single-Zone Refrigerant Gas Monitor

- 1 ppm Minimum Detectable Level
- No calibration required, minimal maintenance



PGM-IR Portable Refrigerant Monitor

- 1 ppm Minimum Detectable Level
- Unaffected by cross contamination and / or changes to temperature or humidity
- 60+ refrigerants accurately detected



Parasense Cloud-Based Remote Monitoring

- Reduce operating costs by reducing emissions
- Refrigerant tracking and compliance
- Effective enterprise management

Gas List

- | | |
|-------------------|-----------|
| • CO | • R-245fa |
| • CO ₂ | • R-32 |
| • FA188 | • R-401A |
| • FC72 | • R-402A |
| • H1211 | • R-402B |
| • H1301 | • R-404A |
| • H2402 | • R-407A |
| • HFO1233zd(E) | • R-407C |
| • HFO1234YF | • R-407F |
| • HFO1234ZE | • R-408A |
| • HFO1336E | • R-409A |
| • HFO1336Z | • R-410A |
| • HFP | • R-422A |
| • N1230 | • R-422D |
| • N4710 | • R-424A |
| • N5110 | • R-426A |
| • N7100 | • R-427A |
| • N7200 | • R-438A |
| • N7300 | • R-448A |
| • N7600 | • R-449A |
| • R-717 (Ammonia) | • R-452A |
| • R-11 | • R-452B |
| • R-113 | • R-454A |
| • R-114 | • R-454B |
| • R-12 | • R-454C |
| • R-123 | • R-500 |
| • R-1233zd | • R-502 |
| • R-1234yf | • R-503 |
| • R-1234ze | • R-507 |
| • R-124 | • R-508B |
| • R-125 | • R-513A |
| • R-134a | • R-514A |
| • R-21 | |
| • R-22 | |
| • R-227 | |
| • R-23 | |
| • R-236fa | |

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice. MSA is a registered trademark of MSA Technology, LLC in the US, Europe, and other Countries. For all other trademarks visit <https://us.msasafety.com/Trademarks>.

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