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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

Proprietary infrared (NDIR) sensor accurately detects the presence of a target gas down to an industry-leading 1 ppm Minimum Detection Level (MDL)

Backlit display shows real-time concentration readings

Easy to use interface with LED traffic light notifications

The Bacharach Multi-Zone gas library contains 65+ refrigerants including CFCs, HFCs, HCFCs, HFOs, and natural refrigerants.

Capable of monitoring up to 16 zones

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 and BACnet, 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.
- Propriety 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 (CO_2)

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 pumo (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.
- Splitter 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, 10ppm, CO2: 10 ppm
Enclosure Rating	General Purpose
Analog Communications	4 to 20 mA (optional)
Digital Communications	Modbus RTU via RS 485, BACnet (optional)
Buzzer	80 dB @ 10 cm
Product Dimensions (L × W × H)	13.7" × 12.3" × 5" (350 mm × 315 mm × 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:

Environment

Cost of Refrigerant

Safety Compliance

Product / Service Loss

Energy Consumption

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
- CO_2
- FA188
- FC72
- H1211
- H1301
- H2402
- HFO1233zd(E)
- HFO1234YF
- HFO1234ZE
- HFO1336E
- HFO1336Z
- HFP
- N1230
- N4710
- N5110
- N7100
- N7200
- N7300
- N7600
- R-11
- R-113
- R-114
- R-12
- R-123
- R-1234ze
- R-124
- R-125
- R-134A
- R-21
- R-22
- R-227
- R-23
- R-236fa
- R-245fa
- R-32
- R-401A
- R-402A
- R-402B
- R-404A
- R-407A
- R-407C
- R-407F
- R-408A
- R-409A
- R-410A
- R-422A
- R-422D
- R-424A
- R-426A
- R-427A
- R-438A
- R-448A
- R-449A
- R-452A
- R-452B
- R-454A
- R-454B
- R-454C
- R-466A
- R-500
- R-502
- R-503
- R-507
- R-508B
- R-513A
- R-514A

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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