



## REFRIGERANT MONITOR

### MVR 300

#### FEATURES

Easy to install  
 Flush mount  
 Interoperability  
 Alarm management  
 Easy to maintain  
 High sensitivity  
 Predictive maintenance

#### BENEFITS

Fits in standard electrical 2-gang back-box  
 Aesthetic non-intrusive appearance  
 Two relays and Modbus communication  
 LED, buzzer, two levels, configurable delay and fail-safe  
 Compliant with EN 378 and ASHRAE 15  
 Leaks detected early protecting occupants  
 Advance notice on maintenance

### The VRF/VRV System Refrigerant Leak Detection Solution.

#### DESCRIPTION

The MVR 300 area monitor is specifically designed to provide continuous monitoring for refrigerant leaks from VRF/VRV (Variable Refrigerant Flow/Variable Refrigerant Volume) systems. Typical applications include hotels, dormitories, hospitals, office buildings, and apartment buildings.

The MVR 300 audible and visual alarms alert occupants and simultaneously communicate to Building Management Systems/Building Automation Systems (BMS/BAS).

Two on-board relays can be used to close valves, activate alarm devices and exhaust fans or initiate emergency calls to rescue teams.

The on-board Modbus RTU interface provides real-time information about concentrations, status and settings. It also enables custom configuration of the MVR 300 to any application specific requirements using multiple Modbus registers.

The MVR 300 is designed for easy installation and simple maintenance.



VISIBLE ALARM



COMMERCIAL



REFRIGERATION

**TECHNICAL DATA**

PRODUCT ATTRIBUTES	DESCRIPTION	DEFINITION	
<b>Detectable Gases</b>	R-22, R-32, R-134a, R-404a, R-407c, R-410a		
<b>Measuring Ranges</b>	0 to 2,500 ppm, 0 to 5,000 ppm, 0 to 10,000 ppm		
<b>Housing</b>	Flush mount, white ABS, optional decals for cover plate adaptation Fits in most 2-gang electrical back-boxes 2" (50 mm) deep; not included		
<b>Size (L x W x D, approx.)</b>	6" x 4.1" x 1.75" (150 x 105 x 45 mm) including bezel Depth of bezel 0.39" (10 mm)		
<b>Protection</b>	Indoor: IP40, NEMA 1		
<b>Weight (approx.)</b>	8 oz (230 g)		
<b>Power</b>	100 to 240 VAC, 50/60 Hz, 4 W max.		
<b>Indicator</b>	Tri-colour LED: green, amber, red		
<b>Buzzer</b>	80 dB at 12" (30 cm)		
<b>Relay</b>	Two SPDT: low alarm and high alarm / fault, normal or fail-safe; configurable Rating: 1 A at 30 VDC, 1 A at 125 and 240 VAC, resistive load		
<b>Alarm Delay</b>	0 to 15 minutes; configurable 0, 5, 10, 15		
<b>Wiring</b>	Power	3-core cable, 14 to 20 AWG (0.5 to 2.0 mm <sup>2</sup> )	
	Relay	3-core cable, 18 to 20 AWG (0.5 to 1.0 mm <sup>2</sup> )	
	Modbus	2-core twisted pair shielded cable 18 to 24 AWG (0.2 to 1.0 mm <sup>2</sup> ) with 120 Ohm characteristic impedance (e.g. Belden 8761)	
<b>Modbus RTU</b>	Baud Rate	9,600 or 19,200; configurable	
	Start Bits	1	
	Data Bits	8	
	Parity	none, odd, even; configurable	
	Stop Bits	1 or 2; configurable	
	Retry Time	500 ms, min time between retries	
	End of Message	Silent 3.5 characters	
<b>Environmental Parameters</b>	Temperature	32 to 120 °F (0 to 50 °C)	
	Storage	- 5 to 100 °F (- 20 to 40 °C)	
	Humidity	5 to 90% RH, non-condensing	
	Pressure	23.6 to 32.5 inch of Hg (800 to 1,100 hPa)	
	Elevation	0 to 6,560 ft. (2,000 m) altitude	
<b>Sensor life</b>	5 to 8 years (typical)		
<b>Approvals</b>	CE, UL/CSA/IEC/EN 61010-1		
<b>Alarm/Range</b>	0 to 2,500 ppm	0 to 5,000 ppm	0 to 10,000 ppm
<b>Alarm 1</b>	500 ppm	1,000 ppm	2,000 ppm
<b>Alarm 2</b>	2,000 ppm	4,000 ppm	8,000 ppm

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New Kensington, PA USA | Dun Laoghaire, Ireland | Toronto, Canada  
mybacharach.com | help@mybacharach.com