Refrigerant Monitors

Welcome to the Future of Refrigerant Safety

Refrigerant Monitors Refrigerant Leak Detection – Aspirated Gas Detection

In today's fast-paced world, ensuring the safety and efficiency of HVAC systems is more critical than ever. As environmental regulations tighten and the demand for energy-efficient solutions grows, the need for advanced monitoring systems becomes paramount. Introducing our state-of-the-art Refrigerant Monitors – the cutting-edge solution designed to safeguard your environment, protect your assets, and ensure compliance with the latest industry standards.

Our refrigerant monitors are engineered to provide continuous, real-time detection of refrigerant leaks, offering unparalleled accuracy and reliability. By actively sampling the air and analyzing it for the presence of refrigerants, these monitors can detect even the smallest leaks before they escalate into costly and hazardous situations. This proactive approach not only helps in maintaining optimal performance of your HVAC systems but also significantly reduces the risk of refrigerant loss, environmental damage, and potential health hazards.

Whether you are managing a commercial building, a data center, or an industrial facility, our refrigerant monitors are designed to integrate seamlessly into your existing infrastructure. With user-friendly interfaces, customizable alert settings, and robust reporting capabilities, you can have peace of mind knowing that your environment is continuously monitored and protected.

Embrace the future of refrigerant safety. Read on to learn more about how our refrigerant monitors can revolutionize your approach to HVAC system management and environmental protection.

TruSense™ RMWH Gas Monitor

Industry leading precision monitoring for low-level gas leak detection

The Trane TruSense™ RMWH Gas Monitor delivers the best refrigerant leak detection available, with industry-leading MDL of 1ppm 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.

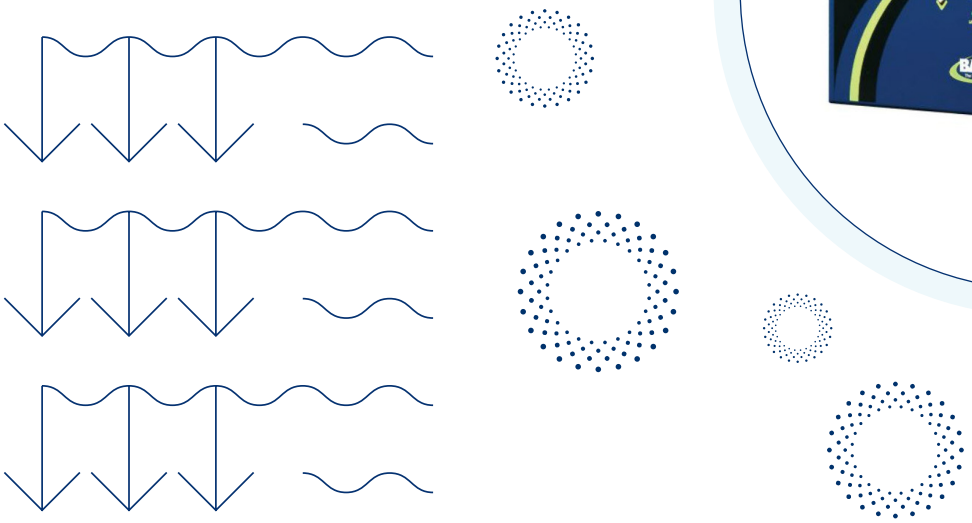
The RMWH enhances effective refrigerant management and ensures compliance with refrigeration safety standards (ASHRAE 15, EN 378, CSA-B52) and emissions regulations (F-Gas, CARB RMP). It detects leaks early to enable cost savings by reducing refrigerant recharge, enhancing energy efficiency and reducing 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.

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

- Sensor is not prone to false alarms caused by cross-interference from other gases or sudden changes in temperature or humidity
- Gas library contains 60+ refrigerants, including CFCs, HFCs, HCFCs, HFOs and natural refrigerants (R-744, R-717)
- Backlit display shows real-time concentration readings and makes configuration and self-diagnostics intuitive
- Capable of monitoring up-to 16 zones (expandable up to 48 sample points) and detecting multiple gases with a single monitor
- Two optional analog outputs (4-20mA) and Modbus communications (slave) for integration with third-party BMS/BAS control systems
- Three user-configurable relays (leak, spill and evacuate) may be used to activate external beacons/sounders, ventilation or other countermeasures
- A variety of communication interfaces are available including Modbus, BACnet and LonWorks, allowing easy integration into BMS/BAS systems and remote monitoring solution

Single-Zone Refrigerant Monitor

Precision monitoring for low-level refrigerant leak detection for small to medium size facilities



The HGM-SZ Single Zone (tube) Refrigerant Gas Monitor is designed for continuous monitoring of CFC, HFC, and HCFC refrigerants and halogen gases with a 1/4 in. O.D. tube up to 50 ft (15m) distance from measuring point to monitor. 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-SZ provides a system fault relay output and a 4 to 20 mA output for integration with remote monitoring equipment or building management systems. The HGM-SZ Single 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.

- Proprietary infrared (NDIR) sensor accurately detects the presence of a target gas down to an industry-leading 1 ppm Minimum Detection Level (MDL)
- Sensor is not prone to false alarms caused by cross-interference from other gases or sudden changes in temperature or humidity
- Gas library contains 50+ refrigerants, with Halogen, CO_2 and NH_3 versions available
- Backlit display shows real-time concentration readings and makes configuration and self-diagnostics intuitive
- High performance sampling pump for fast response times, including extending sample lines

Multi-Zone Gas Monitor

Industry leading precision monitoring for low-level gas leak detection

Trane's Multi-Zone Gas Monitor delivers the best refrigerant leak detection available, with industry-leading MDL of 1ppm 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 and ensures compliance with refrigeration safety standards (ASHRAE 15, EN 378, CSA-B52) and emissions regulations (F-Gas, CARB RMP). It detects 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.

- Proprietary infrared (NDIR) sensor accurately detects the presence of a target gas down to an industry-leading 1 ppm Minimum Detection Level (MDL)
- Sensor is not prone to false alarms caused by cross-interference from other gases or sudden changes in temperature or humidity
- Gas library contains 60+ refrigerants, including CFCs, HFCs, HCFCs, HFOs and natural refrigerants (R-744, R-717)
- Backlit display shows real-time concentration readings and makes configuration and self-diagnostics intuitive
- Capable of monitoring up-to 16 zones (expandable up to 48 sample points) and detecting multiple gases with a single monitor
- Two optional analog outputs (4-20mA) and Modbus communications (slave) for integration with third-party BMS/BAS control systems
- Three user-configurable relays (leak, spill and evacuate) may be used to activate external beacons/sounders, ventilation or other countermeasures

Specifications

Gas Detectors	RMWH	Multi-Zone Refrigerant Monitor	Single-Zone Refrigerant Monitor
Sensor Channels	4, 8 or 16	4, 8, 12, or 16	1
Warranty	3 Years (Parts)	3 Years (Parts)	3 Years (Parts)
Product Weight	17 lbs	15 lbs	6 lbs
Product Dimensions (LxWxH)	13.6" x 7.6" x 15.6"	13.7" x 4.96" x 12.23"	13.5" x 3.625" x 7.5"
Sensor Type	Photoacoustic Infrared-Less susceptible to interference, fewer false alarms	NDIR (Non-Dispersive Infrared)-More susceptible to particulate interference, may cause more false alarms	NDIR (Non-Dispersive Infrared)-More susceptible to particulate interference, may cause more false alarms
Enclosure Ratings	IP54 (Indoor Only)	General Purpose (Indoor Only)	General Purpose (Indoor Only)
Analog Communications	4 to 20 mA (Standard) 0-10 Vdc (Standard)	Dual 4 to 20 mA (Optional)	Dual 4 to 20 mA (Standard)
Digital Communications	Modbus RTU RS485 (Standard) BACnet MS/TP (Standard)	Modbus RTU RS485 (Standard) BACnet MS/TP (Optional)	Modbus RTU RS485 (Standard) BACnet MS/TP (Optional)
Configurable Relays	3 Alarm, 1 Fault, 1 Horn, SPDT	2 alarm relays, 1 fault relay, SPDT	3 alarm relays, 1 fault relay, SPDT
Buzzer Volume	95 +/-5 dB(A) at 24"	80dB (A) @ 24"	80dB (A) @ 24"
Approvals	CAN/CSA C22.2 No. 61010-1-12 UL61010-1, 3rd edition IEC/EN 61010-1:2010 CE conform EN 14624 (for multi-gas unit)	UL 61010-1 EN 61010-1 CAN/CSA C22.2 No. 61010-0	UL 61010-1 EN 61010-1 CAN/CSA C22.2 No. 61010-1
Predictive Monitoring	Monitor will tell you when it needs serviced	NA	NA

Gas List and Instrument Suitability	Safety Group	RMWH	Single-Zone Refrigerant Monitor	Multi-Zone Gas Monitor
FA-188	-	✓	✓	✓
FC-3284	-	✓	✓	✓
FC-72	-	✓	✓	✓
H1211 (R-12B1)	-	✓	✓	✓
H1301 (R-13B1)	-	✓	✓	✓
H2402 (R-114B2)	-	✓	✓	✓
H1336E	-	✓		
HFP	-	✓	✓	✓
Novec 1230	-	✓	✓	✓
Novec 4710	-	✓	✓	✓
Novec 5110			✓	✓
Novec 7100	-	✓	✓	✓
Novec 7200	-	✓	✓	✓
Novec 7300	-	✓	✓	✓
Novec 7600	-	✓	✓	✓
R-11	A1	✓	✓	✓
R-113	A1	✓	✓	✓
R-114	A1	✓	✓	✓
R-12	A1	✓	✓	✓
R-123	B1	✓	✓	✓
R-1224ydz	A1	✓	✓	
R-1233yf	A2L	✓	✓	✓
R-1234ze	A2L	✓	✓	✓
R-1234yf				✓
R-124	A1	✓		✓
R-125 (FE-25)	A1			✓
R-134a				✓
R-1336mzze				✓
R-1336mzzz				✓
R-21	B1	✓	✓	✓
R-22	A1		✓	✓
R-227ea (FM-200)	A1	✓	✓	✓
R-23	A1		✓	✓
R-236fa	A1	✓	✓	✓
R-245fa	B1		✓	✓
R-290 (Propane)	A3			
R-32	A2L		✓	✓
R-401A	A1	✓	✓	✓
R-402A	A1	✓	✓	✓
R-402B	A1	✓	✓	✓

Gas List and Instrument Suitability	Safety Group	RMWH	Single-Zone Refrigerant Monitor	Multi-Zone Gas Monitor
R-404A	A1	✓	✓	✓
R-407A	A1	✓	✓	✓
R-407C	A1	✓	✓	✓
R-407F	A1	✓	✓	✓
R-407H			✓	✓
R-408A	A1	✓	✓	✓
R-409A	A1	✓	✓	✓
R-410A	A1	✓	✓	✓
R-422A	A1	✓	✓	✓
R-422D	A1	✓	✓	✓
R-424A	A1	✓	✓	✓
R-426A	A1	✓	✓	✓
R-427A	A1	✓	✓	✓
R-434A	A1			
R-438A	A1	✓	✓	✓
R-448A	A1	✓	✓	✓
R-449A	A1	✓	✓	✓
R-450A	A1			
R-452A	A1	✓	✓	✓
R-452B	A2L	✓	✓	✓
R-454A	A2L	✓	✓	✓
R-454B	A2L	✓	✓	✓
R-454C	A2L	✓	✓	✓
R-455A	A2L	✓	✓	✓
R-463A				✓
R-500	A1	✓	✓	✓
R-502	A1	✓	✓	✓
R-503	-	✓	✓	✓
R-507A	A1	✓	✓	✓
R-508B			✓	✓
R-513A	A1	✓	✓	✓
R-514A	B1	✓	✓	✓
R-717 (Ammonia)	B2L	✓	✓	✓
R-744 (CO_2)	A1	✓	✓	✓
R-1150 (Ethylene, C_2H)	A3	✓		
Carbon Monoxide (CO)	-		✓	✓
Nitrogen Dioxide (NO_2)	-		✓	✓
Sulfur Hexafluoride (SF_6)	-	✓	✓	✓

Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.com or tranetechnologies.com.*

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