

MSA Gas Detection

[for the HVAC Industry]



A Passion for Safety

MSA's passion for safety comes from almost a full century of manufacturing high quality gas monitoring instruments.

MSA designs and manufactures a complete line of world-class gas detection products for the HVAC markets.

Our passion shows through in our rugged, permanent instruments, providing you with a complete solution for your gas detection needs.

We are dedicated to designing and manufacturing the highest-quality gas monitoring instruments for our customers to ensure that men and women may work in safety and that they, their families and their communities may live in health throughout the world.

Providing the best products, service and support in the industry. That's the MSA passion.



The Chillgard® RT Photoacoustic Infrared Refrigerant Monitor is the industry standard for refrigerant leak detection monitors providing economical, low-level monitoring of refrigerant gases used in most refrigeration systems or chillers. The Chillgard RT Refrigerant Monitor utilizes very stable and highly-selective photoacoustic infrared (IR) technology to sense refrigerant gases. The Chillgard RT Refrigerant Monitor has a high immunity to interferents commonly found

in mechanical equipment rooms, such as cleaning agents and solvents. The Chillgard RT Refrigerant Monitor complies with ANSI/ASHRAE 15-2001 and is certified to UL 2075 for fire, shock and performance.

- Ease of Use – Easy to install, operate and maintain
- Sensitivity – Detection down to 1 ppm
- Flexibility – Can detect virtually any refrigerant
- Expandability – Can monitor up to eight locations
- Stability – Can operate for months with virtually no zero drift

MSA Chillgard® L Series Refrigerant Monitoring Systems

can be configured for virtually any refrigerant monitoring need. The Chillgard LS Sensor Module uses MSA's market-leading photoacoustic infrared technology to sense refrigerant gases. The Chillgard LC Control Module can communicate with up to eight sample points from Chillgard LS Refrigerant Monitors can remotely display gas concentration, alarm status, calibration and fault diagnostics. The Chillgard LE Refrigerant Monitor contains the sensor and the control module in one enclosure.



- Detection of five most common refrigerants down to 20 ppm
- Expandable up to four points of detection
- Wide choice of power options available
- Comply with ANSI/ASHRAE 15-2001 and are certified by UL for fire and shock



Z Gard™ S Sensors are the lowest cost units available which maintain consistently high performance. Although they are primarily used to protect against unsafe or toxic gas conditions that may exist in parking garages, tunnels, furnace rooms and maintenance garages, they can be used to monitor any area where gas buildup may occur. Z Gard S Sensors can detect

carbon monoxide, nitrogen dioxide or refrigerants.

- Easy to install, operate and maintain
- Long-life, reliable solid-state sensors or sensitive electrochemical sensors
- Connects to MSA Z Gard C Controllers PLC, DCS and energy management systems
- Local readout
- CSA certified, NRTL/C approval
- 4 to 20 mA or RS-485 output



Z-Gard® C Controllers are unique, high-tech monitors at a very cost-effective price, offering a wide range of features normally found on higher-priced units. Z-Gard C Controllers are configurable to fit your needs. These controllers also feature the ability to zone the sensors, a feature not found on many

other controllers.

- Can accept inputs from up to 40 sensors
- Choice of 4-20mA or RS-485 signal inputs
- Flexible and programmable
- Zoning capability
- 110/220 volts AC-powered
- Integral horn and horn acknowledge button
- Alarm and fault relays

Ultima® X Series Gas Monitors

offer the latest in mechanical and electrical technologies for the continuous gas monitoring of combustible and toxic gases as well as for oxygen deficiency. Advance sensing technologies utilize catalytic, electrochemical and infrared gas detection methods. World-class design and engineering efforts feature a single-board design for ultimate reliability and serviceability.



Other advanced features of Ultima X Series Gas Monitors include:

- Sensor Disconnect Under Power - MSA's proprietary feature allows for sensor change-out without declassifying a hazardous area.
- Interchangeable Smart Sensors - Pre-calibrated sensor

modules are ready for installation out of the box. Sensors can be replaced in the field without the use of tools.

- State-of-the-Art Display - Liquid crystal display conveniently alternates between sensor reading and gas type and features scrolling messaging, indicating ongoing diagnostic checks such as sensor "end-of-life" condition.
- Onboard LEDs and Relays - Optional "quick-check" LEDs and four relay outputs allow for increased indication of alarm and fault conditions. "Quick-check" LEDs, viewable from afar, indicate NORMAL (green) and ALERT (red) status conditions.



Toxgard® II Gas Monitors are used in a variety of industrial or commercial applications. This monitor is easy to install and operate; just apply power to the Toxgard II Gas Monitor and it is ready to go, or use it as a transportable gas monitor with its optional internal battery. The Toxgard II Gas Monitor can be applied where there is a threat of the build-up of combustible gases, the presence of

toxic gases, or oxygen deficiency.

- Housed in a rugged, metal enclosure designed for NEMA 4X
- Easy sensor replacement
- Three levels of alarm w large LED alarm indicators
- Large, four-digit LED display
- Internal relay contacts for FAULT, CAUTION, WARNING and ALARM
- 4 to 20 mA output

The AirOX™ Indoor Air Quality (IAQ) Monitor

continuously monitors levels of carbon dioxide (CO₂) and volatile organic compounds (VOCs) for an overall indication of Indoor Air Quality, and is intended to help building owners comply with the new ASHRAE Indoor Air Quality Standard 62R. The AirOX Indoor Air Quality (IAQ) Monitor provides sensing of CO₂ over a range of 0-2000 ppm converted to an output signal ranging from 4-20 mA or 0-10 VDC.



- Low cost of ownership
- Suitable for virtually any type of occupied industrial, commercial, or residential
- Patented photoacoustic infrared technology
- No field calibration or maintenance

Gas Detection Selection Chart

	Halogenated Refrigerants	Ammonia	Carbon Monoxide	Nitrogen Dioxide	Carbon Dioxide	Combustible Gas	Oxygen Deficiency
Mechanical Equipment Rooms	●	●				●	●
Food Storage		●			●		●
Boiler Rooms	●		●		●	●	●
Parking Garages			●	●		●	●
Occupied Buildings					●	●	●
Research labs	●	●	●	●	●	●	●
Tunnels			●	●		●	●
Maintenance Garages	●	●	●	●		●	●
Ventilation Ducts			●	●	●	●	●
Meat Packing Plants	●	●			●		●
Supermarkets	●	●			●		●

Note: This Data Sheet contains only a general description of the product shown. While uses and performance capabilities are described, under no circumstances should the product be used except by qualified, trained personnel, and not until the instructions, labels or other literature accompanying the product have been carefully read and understood and the precautions therein set forth followed. Only they contain the complete and detailed information concerning this product.

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