MSA Gas Detection
for the HVAC Industry

www.msagasdetection.com

MSA
The Safety Company

A Passion for Safety

MSA's passion for safety comes from almost a full century of designing and manufacturing a complete line of world-class gas detection products.

Our passion shows through in our rugged permanent instruments, providing complete solutions for your gas detection needs.

We are dedicated to ensuring 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.

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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 Monitor utilizes very stable and highly-selective photoacoustic infrared (PIR) technology to sense refrigerant gases. The Chillgard RT Refrigerant Monitor has high immunity to interferants 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 – Detects virtually any refrigerant
- Expandability – Monitors up to eight locations
- Stability – Operates 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 and 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.

- Detect the five most common refrigerants down to 20 ppm
- Expandable to 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

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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 build-up may occur. Z Gard S Sensors can detect carbon monoxide, nitrogen dioxide or refrigerants.

- Easy to install, operate and maintain
- Offers 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

The Chillgard® NH3 Gas Monitor offers the latest in mechanical, electrical and gas sensing technologies for continuous gas monitoring of ammonia. Reliable electro-chemical sensing technology is used to detect ppm levels of ammonia. World-class design and engineering produced a single-board design for ultimate reliability and serviceability. Other advanced features of the Chillgard NH3 Gas Monitor include:

- Integral heating element – Optional heating control system allows sensor to operate continuously down to -40˚ C.
- Interchangeable Smart Sensors – Pre-calibrated sensor modules are ready for installation out of the box. Sensors can be replaced in the field without the need for 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.

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 with large LED alarm indicators
- Large, four-digit LED display
- Internal relay contacts for FAULT, CAUTION, WARNING and ALARM
- 4 to 20 mA output

Ultima® XL/XT Series Gas Monitors are economical continuous gas monitors. Single-sensor units use catalytic, electrochemical, and infrared gas detection technologies for combustible and toxic gases and for oxygen deficiency. HART Field Communications Protocol running over 4-20mA output provides convenient setup, calibration, and diagnostics. The hand-held HART communicator, controller or laptop provides a display, while local calibration employs LEDs and a push-button. The Ultima XL Gas Monitor is explosionproof with a stainless steel enclosure, while the Ultima XT Gas Monitor is in a general purpose plastic housing.

- Sensor disconnect-under-power without declassifying a hazardous area
- Interchangeable smart sensors; no reconfiguration required
- One circuit board for increased reliability and easier serviceability
- Calibrate, set up or perform diagnostics with HART from any point along the 4-20mA line
- Easy installation with two-piece fieldwiring connectors
- Asset management using HART interface
- Adjustable full-scale range

Gas Detection Selection Chart

Hazard Location	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 Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

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