



Gas Leak Detection System



MSA, an American company known as **'The Safety Company'** because of its precision technology to make safety the highest quality so that people can work anywhere in the world in the safest possible environment. It's core products include self-contained breathing apparatus, fixed gas and flame detection systems, portable gas detection instruments and personal protection products for fire, rescue and fall.

Gas leak detection is the process of identifying potentially hazardous gas leaks by sensors. These sensors usually employ an audible alarm to alert people when a dangerous gas has been detected and can interface with a control system so as to automatically shut down a process or start a ventilation system. Which variant of gas detection is best; depends on location, preferences and different sources that may pose a danger to human/animal life.

Gas detectors can be used to detect combustible, flammable and toxic gases, and oxygen depletion. These devices are used widely in industry and can be found in locations, such as on oil rigs, to monitor manufacture processes, HVAC plant rooms, water treatment plants, sewage systems and firefighting etc. Exposure to toxic gases can also occur in operations such as painting, fumigation, fuel filling, construction, excavation of contaminated soils, landfill operations, entering confined spaces, etc.

Common sensors include combustible gas sensors, photoionization detectors, infrared point sensors, ultrasonic sensors, electrochemical gas sensors, and semiconductor sensors. More recently, infrared imaging sensors have come into use.

The HVAC industry requires a wide variety of gas detection needs. From boiler rooms, battery rooms, engineering and research labs, and transportation maintenance facilities to many other industrial building and facility applications, each environment has its own monitoring needs. To enable personnel to work safely within these environments, monitoring of toxic gases, oxygen enrichment and deficiency and combustible gases is necessary.

MSA Chillgard® 5000 Refrigerant Leak Monitor

The Chillgard-5000 Refrigerant Leak Monitor provides the earliest level of detection of costly refrigerant gas leaks in mechanical equipment rooms. Sampling system with patented photo-acoustic infrared (PAIR) technology detects leaks as low as 1 part per million (ppm). Intuitive, touchscreen user interface makes it easy to operate. Predictive maintenance and diagnostics keep you operational. Meets ASHRAE 15 requirements to provide visual and audible alarms both inside and outside of mechanical equipment rooms and to activate mechanical ventilation.

Highlights

- ◆ Sensitivity - earliest level of detection down to 1 ppm
- ◆ Reliability - advanced sensor diagnostics and predictive maintenance
- ◆ Versatility - monitors up to 6 refrigerants field selectable through a refrigerant library
- ◆ Stability - minimal drift, not affected by temperature or humidity

Intuitive, multi-lingual user interface provides valuable data through Real-time dashboard:

- ◆ One-touch calibration
- ◆ Event logs
- ◆ Password protected

Digital communications:

- ◆ BACnet®
- ◆ Modbus



MSA Chemgard® Photoacoustic Infrared Gas Monitor

The Chemgard Photoacoustic Infrared Gas Monitor Series with photoacoustic infrared (IR) sensing technology provides precise, low-cost, high-performance monitoring for many gases such as Sulfur hexafluoride (SF6), hydrocarbons, solvents, alcohols, CO2, CO, and additional toxic gases.

The Chemgard Gas Monitor is extremely stable and highly selective to the gas of interest and can operate for months with virtually no zero drift. It offers detectability as low as 0.01 ppm for certain applications. The Chemgard Monitor is factory calibrated, ready to detect a specific gas in the range desired. Cross-sensitivity to water vapor, a common concern with other types of infrared analyzers, does not occur with this instrument. Proprietary sensing technique determines a sample's amount of water vapor, then subtracts that amount from the gas reading, allowing for extremely stable gas readings and no sensitivity compromise.



Data Logging

- ◆ Can log data, giving users access to date stamped information on key events including gas readings, alarms and fault conditions.
- ◆ Gas readings can be logged as maximum or average readings over 15-minute or 1-hour time periods.
- ◆ Data is accessible through front panel display or RS-232 port.



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