

Chillgard® LS Photoacoustic Infrared Refrigerant Monitor



Refrigerant monitor with photoacoustic infrared technology provides economical, low level monitoring of refrigerant gases used in most refrigerant systems or chillers.

Now with micro-machined optics, ultimate reliability, and two-year warranty.

The best gas sensing technology just got better through the latest advancements in micro-machined component technology. The highest quality components which set new standards in consistency and repeatability are used to provide optics with optimal reliability.

Features

- Standard gases detected: R123, R134a, R11, R12, and R22. Other refrigerants available
- Minimum detection level 20 ppm
- Available in single-point diffusion or 4-point pumped models
- Water-resistant and corrosion-resistant plastic enclosure
- 5 LEDs indicating power, fault, and 3 levels of alarm
- Easy to install, operate, and maintain



Chillgard LS Monitors provide fast, reliable detection for low level leaks of refrigerants, helping to prevent major losses of costly refrigerant gas. Standard 4-20mA analog output can be connected directly to any existing building automation system (BAS) or other controller to provide leak indication prior to workers entering rooms containing refrigerant gas. With integral status LEDs and optional strobe, workers are provided with visual indication of status and refrigerant gas levels within their work areas. Chillgard LS Monitors, part of MSA's Chillgard Series family of products, are designed to monitor for loss of refrigerant gases within many applications.

Sensor Technology

Chillgard Series Monitors use very stable and highly selective photoacoustic infrared (PIR) technology to sense refrigerant gases. Chillgard LS Monitors can operate for months with virtually no zero drift. Inherent stability eliminates the requirement of various auto-zeroing techniques that take monitors off-line at regular intervals. Installation of a fresh air sampling line or on-line scrubber is not required with Chillgard LS Monitors. These units have high immunity to interferants such as cleaning agents and solvents, with minimal effect due to changes in humidity. Both issues are typical sources of false alarms when using other sensing technologies.

Typical Specifications: Single-point Diffusion Model

Standard refrigerants detected	R123, R134a, R11, R22, R-12
Typical operating range	0-1000 ppm
Minimum detectability	20 ppm
Linearity	0-100 ppm linear, 101-1000 ppm \pm 5% of reading
Warm-up time	10 minutes
Response time	50% of step change in less than 60 seconds
Operating temperatures	0 to 40°C (32 to 104° F)
Non-operating temperatures	-40 to 60°C (-40 to 140°F)
Relative humidity	0-99%
Operating power options	24 VAC/DC standard, 110/220 VAC optional
Output	4 to 20 mA and RS 485 Modbus (Chillgard LC controller)
Physical	7.1" x 10" x 4.25"
Weight	5.5 lbs.
Warranty	2 years
Approval	UL compliant with ANSI/ASHRAE 15

Applications

- Mechanical equipment rooms
- Propellant filling operations
- Solvent cleaning stations
- Cold storage and transport facilities
- Meat packing plants
- Supermarkets and refrigerant storage locations
- Other specialty applications using halocarbons

Accessories (Call 1-800-MSA-INST)

Calibration box	10035292
Unit-mounted strobe	634674
Remote light towers	
Calibration kits	
Chillgard LC Control Module –	see bulletin #07-0009-MC for more information
Remote Displays	

Typical Specifications: 4-point Pumped Model

same specs as single-point except for:

Minimum sample flow rate	0.75 liters/min.
Maximum total tubing length	300 ft.
Physical	14.7" x 11.2" wide x 5" deep
Weight	9.5 lbs.



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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