

# Chillgard® LE 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, R22 other refrigerants are available
- Minimum detection level: 20 ppm
- Single-point pumped or diffusion, or 4-point pumped models
- Water- and corrosion-resistant plastic enclosure
- Four internal relays: fault and 3 alarm levels
- 85Db horn: with 100Db option
- Easy to install, operate, and maintain

Chillgard LE 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. Relay contacts can be used to turn on fans or other ventilation and signaling devices. Additionally, integral display, status LEDs, and optional strobe, workers have visual indication of status and refrigerant level in their work area.

## Sensor Technology

Chillgard Series Monitors use very stable and highly selective photoacoustic infrared (PIR) technology to sense refrigerant gases. Chillgard LE 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 LE 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.

## 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

Unit-mounted strobe	634674
Remote light towers	Call 1-800-MSA-INST
Calibration kits	Call 1-800-MSA-INST

### Typical Specifications:

<b>Standard refrigerants detected:</b>	R123, R134a, R11, R12, R22
<b>Operating range:</b>	0-1000 ppm
<b>Minimum detectability:</b>	20 ppm
<b>Linearity:</b>	0-100 ppm linear, 101-1000 ppm $\pm 5\%$ of reading
<b>Warm-up time:</b>	10 minutes
<b>Response time:</b>	50% of a step change in less than 60 seconds
<b>Operating temperatures:</b>	0 to 40° C (32 to 104° F)
<b>Outputs:</b>	0-10V (point identification) and 4 to 20mA analog, RS-232 with datalogging
<b>Non-operating temperatures:</b>	-40 to 60° C (-40 to 140° F)
<b>Relays:</b>	4 form C SPDT, 8 amps at 240 VAC
<b>Relative humidity:</b>	0 to 99%
<b>Operating power options:</b>	24 VAC/DC standard, 110/220 VAC optional
<b>Physical:</b>	14.7" high x 11.2" wide x 5" deep
<b>Approx. weight:</b>	9.5 lbs.
<b>Warranty:</b>	2 years
<b>Approval:</b>	UL, Complies with ANSI/ASHRAE 15
<b>Pumped units</b>	
<b>Minimum sample flow rate:</b>	0.75 liters/min.
<b>Maximum total tubing length:</b>	300 ft.

### Ordering Information

A Chillgard LE Monitor ATO form is available in the MSA Preferred Products Catalog. Call 1-800-MSA-INST (1-800-672-4678) to obtain a copy of the MSA Preferred Products CD.



Typical multipoint installation. Multiple sampling points surround the chiller for maximum protection.



**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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**Corporate Headquarters**  
P.O. Box 426, Pittsburgh, PA 15230 USA  
Phone 412-967-3000

[www.MSAnet.com](http://www.MSAnet.com)

**U.S. Customer Service Center**  
Phone 1-800-MSA-INST  
Fax 1-724-776-3280

**MSA Canada**  
Phone 1-800-672-2222  
Fax 1-800-967-0398

**MSA Mexico**  
Phone (52) 55 2122 5770  
Fax (52) 55 5359 4330

**MSA International**  
Phone 412-967-3354  
FAX 412-967-3451

**MSA**  
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