

# Chillgard<sup>®</sup> 5000

Refrigerant Monitor



# ➤ Mechanical Equipment Room Gas Monitoring

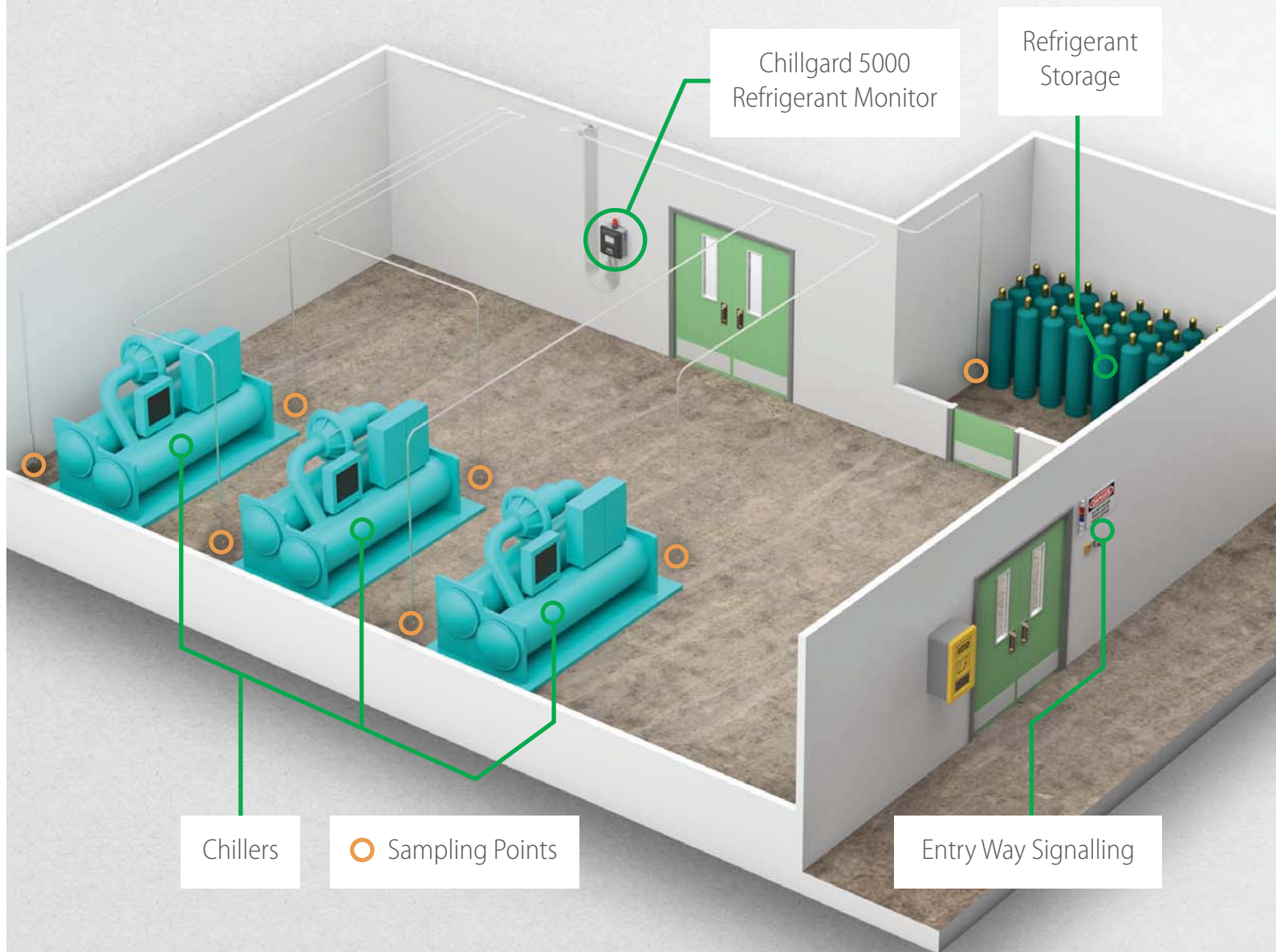
Stay in compliance with ASHRAE 15, the Environmental Protection Agency and local building codes with the Chillgard 5000 Refrigerant Gas Monitor.

—ASHRAE 15 states:

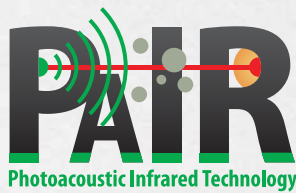
*Each machinery room shall contain a detector located where a refrigerant leak would concentrate.*

*The detector shall trigger an audible and visual alarm both inside and outside the mechanical room and activate mechanical ventilation.*

MSA refrigerant monitoring solutions ensures local and federal compliance; protect your plant and facility.  
**Trust the experts.**



# ➤ Earliest Level of Detection



The Chillgard 5000 provides continuous, real-time monitoring down to 1 ppm with patented Photoacoustic Infrared (PAIR) Technology.



## Stability

Not affected by temperature and humidity swings, minimizing drift



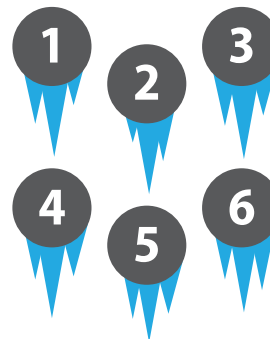
## Sensitivity

1 ppm minimum detection level with our patented PAIR technology



## Reliability

Worry-free operation with advanced sensor diagnostics and predictive maintenance.



## Versatility

Select up to 6 refrigerants to monitor out of our field-selectable refrigerant library

According to the EPA\*, the average leak rate for commercial chillers is

**35%**  
of refrigerant  
per year.

From older refrigerants to new, low global warming potential refrigerants average



**\$40-60**  
per pound (0.5 kg)

...the earliest level of detection keeps money in your pocket.

\* Environmental Protection Agency

# ➤ All New User Interface



### Password Protected

Original password protection can be enabled or disabled



### Multi-Lingual User Interface

Full-text display translated into 6 different languages



### Tech-Friendly Diagnostic Log

Designed for technicians to make important troubleshooting data easily accessible



### Simplified Calibration

Designated calibration port and one-touch calibration mode takes the guess work out of maintaining your monitor



7" (178 mm) color touch display

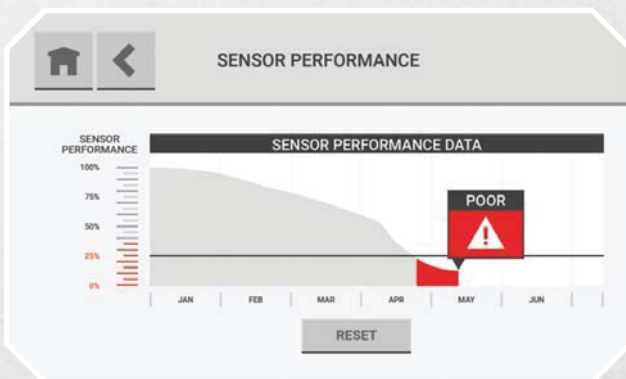
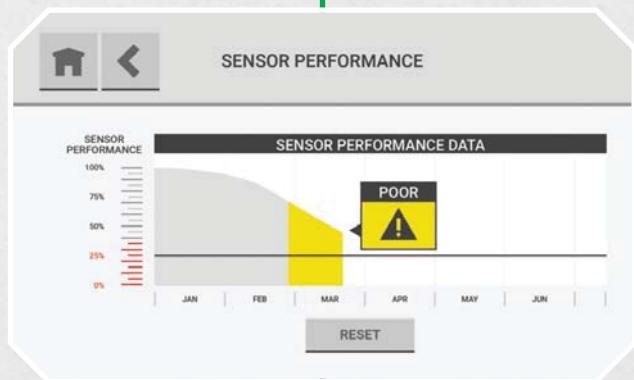
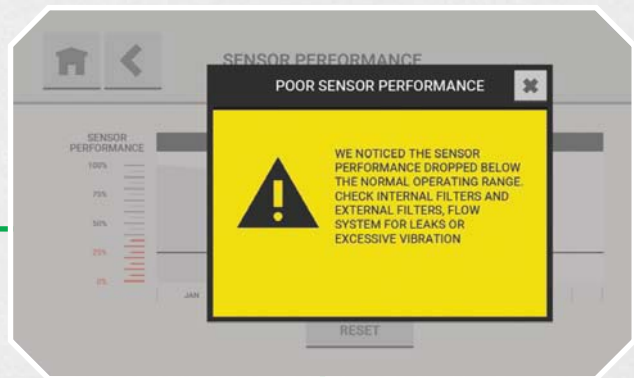
Real-time dashboard view and easy access to settings, event log, diagnostics, and calibration modes

# ➤ Work Smarter

## *Expect more from your Refrigerant Monitor*

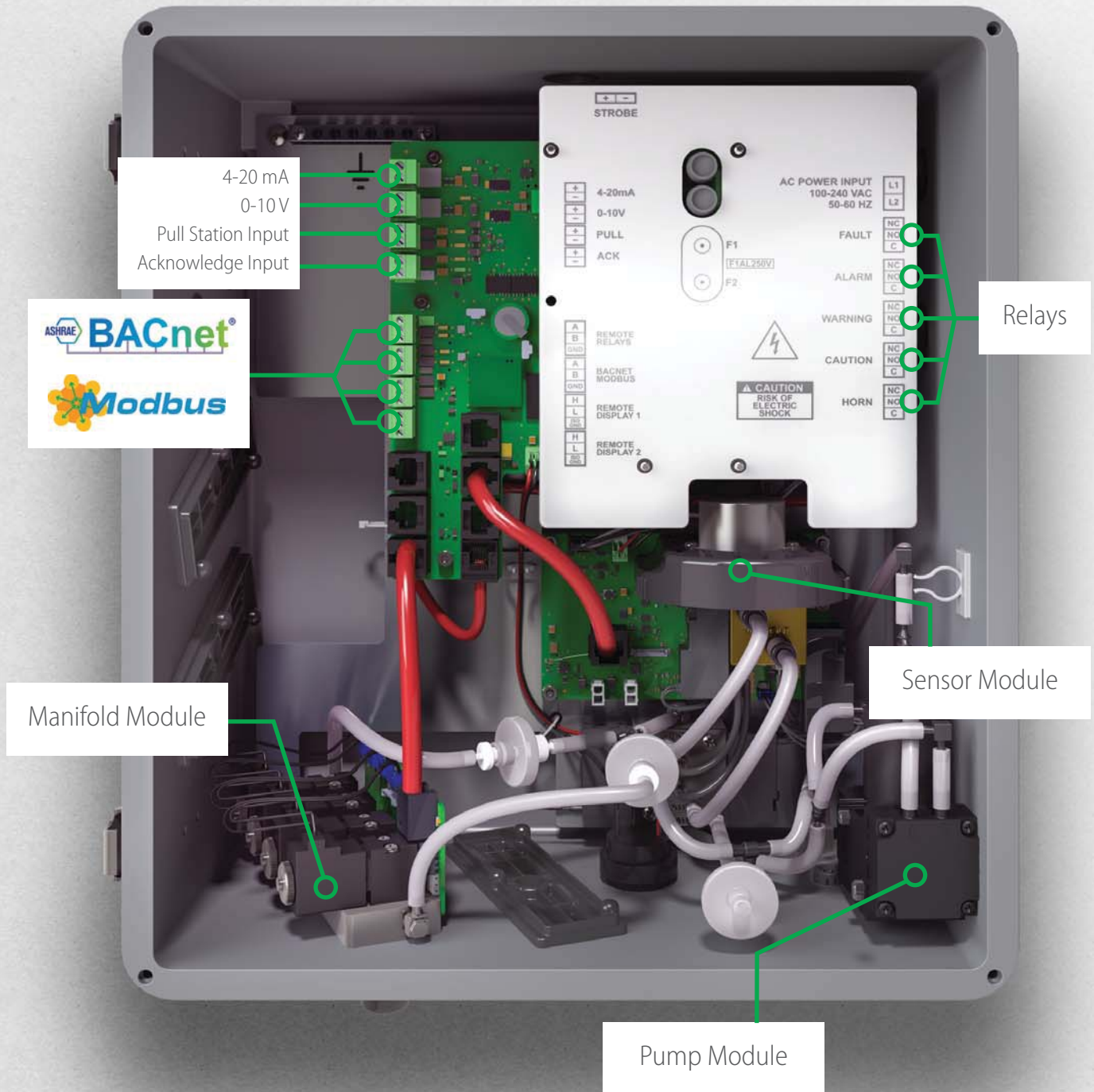
### Predictive Maintenance and Diagnostics

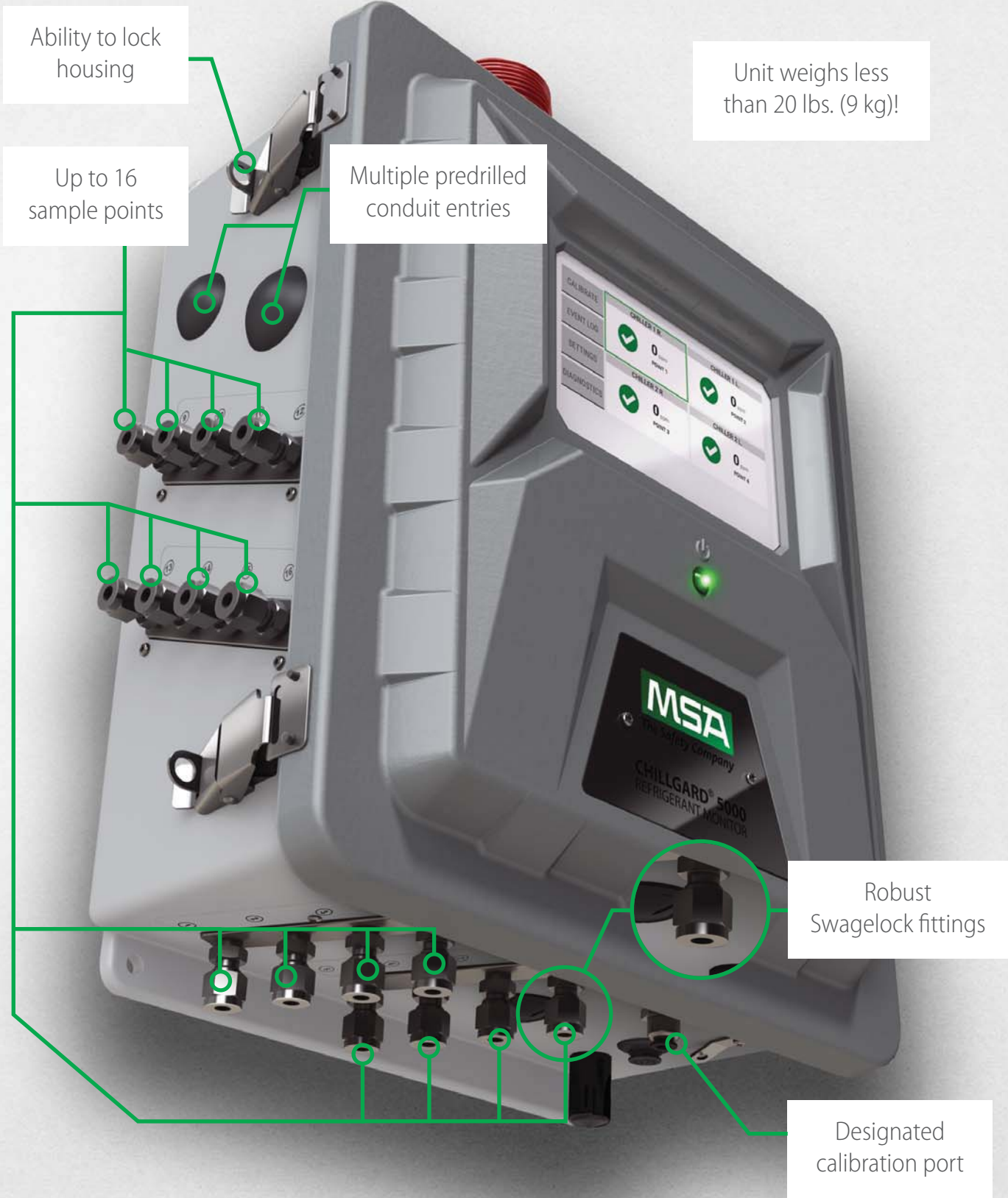
Easy to predict, diagnose and replace modules in the field.



# ➤ Serviceability Made Easy

*Modular design for replacements in minutes*





# ➤ Technical Specifications



<b>USAGE</b>	Indoor use only
<b>OVERVOLTAGE</b>	Category II
<b>POLLUTION</b>	Degree 2
<b>AC POWER</b>	100–240 Vac, 50/60 Hz, 200VA
<b>OPERATING TEMPERATURE</b>	32° to 122° F (0° to 50° C)
<b>OPERATING ALTITUDE LIMIT</b>	9762 ft. (2975 m)
<b>OPERATING HUMIDITY</b>	0 to 95%, noncondensing
<b>INGRESS PROTECTION</b>	IP54
<b>SIZE</b>	15.6 in. x 13.6 in. x 7.6 in. (39.6 cm x 34.5 cm x 19.3 cm) H x W x D
<b>WEIGHT</b>	
4-POINT UNIT	14 lbs. (6.4 kg)
8-POINT UNIT	15 lbs. (6.8 kg)
16-POINT UNIT	17 lbs. (7.7 kg)
<b>SENSOR TYPE</b>	Photoacoustic Infrared
<b>SAMPLE LINE TUBING</b>	
POLYURETHANE TUBING	0.25" OD (0.635 cm) x 0.1875" (0.48 cm) or 0.125" ID (0.3175 cm)
METAL TUBING	0.25" OD (0.635)
<b>SAMPLE LINE MONITORING DISTANCE</b>	Up to 400 ft. (121 m) for optimum performance, will support up to 1250 ft. (381 m)
<b>GASES</b>	R11, R12, R22, R123, R134A, R401A, R404A, R407A, R407C, R407F, R410A, R422A, R422D, R427A, R507, R1233zd(E), R1234yf, R1234ze, R-513A, R-514A
<b>MEASURING RANGE</b>	0 – 1000 ppm
<b>SENSITIVITY (MIN DETECTION)</b>	1 ppm for all listed gases
<b>ACCURACY (LINEARITY)</b>	0–50 ppm ±1 ppm, 51–1000 ppm ±10% of reading
<b>SENSOR RESPONSE TIME</b>	90% of gas reading <70 sec
<b>RELAYS</b>	5 Form C, 8A 250VAC/24VDC resistive SPDT for Fault, Caution Level, Warning Level, Alarm Level and External Horn
<b>AUDIBLE ALARM</b>	95 ±5 dB(A) at 24 in. (61 cm) maximum
<b>COMMUNICATION OUTPUTS</b>	4–20 mA sourcing, 250 Ohm load; 0 – 10 V , 2 K Ohm minimum load; RS485 Modbus RTU; RS-485 BACnet MS/TP
<b>WARRANTY</b>	2 years
<b>APPROVALS</b>	UL 61010-1 (3rd Edition) CAN/CSA-C22 No. 61010-1-2012 IEC/EN 61010-1:2010 (3rd Edition)

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. Specifications subject to change without notice.



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

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