



## New Family of Multipoint / Multigas Refrigerant Monitors from **BACHARACH**

### HGM300 / RDM800

For Continuous Multi-Point Monitoring of CFC, HFC, HCFC and Halon Refrigerant Gases



### AGM300 / ADM800

For Continuous Multi-Point Monitoring of Ammonia Refrigerant Gases



#### Innovations in Infrared Technology

- Select refrigerants to be measured - point by point!
- Eliminate False alarms with use of a non-dispersive IR source with sample draw system
- Measure all gases up to 10,000 ppm with a sensitivity of 1 ppm
- Sample points located up to 500 feet from unit

#### Split Architecture Design

- Remotely interrogate, acknowledge alarms, provide maintenance and evaluate operating conditions
- Quick field expansion from 4 to 16 sampling zones with only a screwdriver
- Bolt-in-Bolt Out internal components so the unit never leaves the wall

#### Enhanced Communication Protocols

- Full two-way communication through RS-485 to the Remote Display Module and Building Management Systems such as Modbus RTU\*
  - RS232C port for local / modem communication
- (\* For other communication protocols, such as LonTalk or N2 (Metasis), please contact the factory.)

#### Cost Effective

- Split-architecture design keeps your investment to a minimum
- Two-year warranty protects your investment

System design supports compliance to the refrigerant monitoring requirements of ANSI / BSR ASHRAE 15 1994/2001. Certified in compliance to UL # 3101-1, CE # EN613262, and EN61010-1.

**Comes With A  
2 Year Warranty**



SPECIFICATIONS		NDIR, MULTI-ZONE SAMPLE DRAW SYSTEMS	
<b>Refrigerants:</b>			
<b>HGM300 Model</b>	<b>CFC:</b> R-11, R-12, R-113, R-114, R-502	<b>HFC:</b> R-404a (HP62), R-407a, R-407c (AC9000), R-134a, R-410a (AZ20), R-507 (AZ50), R-508b (SUVA95)	<b>HCFC:</b> R-22, R-123, R-124, R-500, R-503, R-401a (MP39), R-402a (HP80), R-40b (HP81), R-408a, R-409a, R-23
	<b>HALON:</b> 1301		
	Measuring Range: 0 to 10,000 ppm		
<b>AGM300 Model</b>	R-717 (Ammonia) Measuring Range: 25 to 10,000 ppm		
Inputs:	4 point standard, expandable to 16 points in 4 point increments		
Output Signal:	3 SPDT, 5 Amp, 240 VAC rated alarm relays and 1 SPDT, 5 Amp, 240 VAC rated system fault relay, plus a Digital Display w/ an optional dual 4-20 mA DC analog output.		
Detector Type:	Non-dispersive infrared		
Measuring Range:	All gases 0 to 10,000 ppm		
Sensitivity:	All gases 1 ppm		
Accuracy:	All gases $\pm 10$ ppm from 0 to 100 ppm, $\pm 10\%$ of reading from 100 to 10,000 ppm		
Front Panel Display:	Green LED indicates when unit is operating properly. Red LED indicates when any monitored point is above its alarm setting. Yellow LED indicates a clogged sample line or other system fault.		
Response Time:	5 to 120 seconds, depending on tube length and gas concentration		
Max. Monitoring Distance:	Up to 500 feet from measuring point to monitor		
Power:	120 VAC / 60 Hz (Standard) 240 VAC / 50 Hz		
Size/Weight:	17" L x 12" W x 5.5" D / 15 lbs (43.18cm L x 30.48cm W x 13.97cm D / 6.8 Kg)		

SPECIFICATIONS		REMOTE DISPLAY MODULES	
<b>RDM800 Model</b>	Compatible with HGM300 Model		
<b>ADM800 Model</b>	Compatible with AGM300 Model		
Inputs:	Accepts from one to four inputs via RS-485 from up to four HGM300 Refrigerant Monitors		
Display:	Backlit LCD displays the measured point in ppm		
Trend Mode / Data logging:	User may select a graphical display of the ppm trend for any measured point (100 data entries per point)		
Output Signal	2 SPDT, 5 Amp, 240 VAC assignable alarm relays		
Alarm Indications:	Channel display flashes, red light flashes, alarm signal sent via RS-485		
Input Fault Indication:	Yellow light flashes and the LCD indicates location of input fault		
Max. Monitoring Distance:	Maximum of 4,875 wiring feet from the furthest HGM300 to the RDM800 Display		
Power:	120 / 240VAC, 50 / 60 Hz		
Size/Weight:	11" L x 10" W x 3" D / 5 lbs (wall mounted)		

When ordering this product, you must specify 3 codes: These 3 codes will build up a part number. Codes must be listed in the following sequence.

Code A- Model Number  
Code B- Number of Zones  
Code C- Input Power Type

For example, to order a 4-zone, 120 VAC Ammonia Monitor with a standard analog output and standard calibration, you would order a: AGM300-11-1

Remote Display Modules, options and accessories must be ordered as separate line items.

ORDERING INFORMATION FOR MONITORS	
<b>Code A</b>	<b>Model Number</b>
HGM300	For use with CFC, HFC, HCFC and Halon Refrigerants
AGM300	For use with Ammonia Refrigerants
<b>Code B</b>	<b>Number of zones and connection type</b>
-11	4 Zones with metal tube fittings
-12	8 Zones with metal tube fittings
-13	12 Zones with metal tube fittings
-14	16 Zones with metal tube fittings
<b>Code C</b>	<b>Input Power Type</b>
-1	120 VAC / 60 Hz (Standard)
-2	240 VAC / 50 Hz

ORDERING INFORMATION FOR REMOTE DISPLAY MODULES	
3015-2875	RDM800 120 VAC / 60 Hz
3015-2885	RDM800 240 VAC / 50 Hz
3015-4195	ADM800 120 VAC / 60 Hz
3015-4196	ADM800 240 VAC / 50Hz

OPTIONS / ACCESSORIES	
<b>PART NO.</b>	<b>DESCRIPTION</b>
3015-4121	120 VAC surge protection
3015-4122	230 VAC surge protection
3015-4123	4-20 mA dc surge protection (two required)
3015-3133	Dual 4-20 mA DC output PC board
3015-3069	Visual alarm 120 VAC
3015-3070	Audio alarm 120 VAC
3015-3076	Audio / Visual alarm 120 VAC
3015-3423	Annual maintenance kit
3015-3235	Air sample tubing (250' per roll)

#### Distributed By:



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