





Single-Zone (SZ) High Precision Refrigerant Monitor

FEATURES

1 ppm Minimum Detectable Level	Detects leaks that other instruments can't
Early detection of refrigerant leaks	Mitigate refrigerant loss, protect produce, enhance energy efficiency
Over 50 different refrigerants accurately detected	Select from a wide range of refrigerant calibration to meet project needs
Infrared sensor technology	Accurate, precise measurement unaffected by other gases, temperature or humidity
High performance sampling pump	Fast response times, including extended sample lines
Minimal maintenance and no calibration required	Low cost of ownership
Halogen, CO_2 and NH_3 versions available	Suitable for a variety of refrigerant monitoring applications

BENEFITS

The Most Effective Refrigerant Monitor in the Industry

DESCRIPTION

Bacharach's Single-Zone delivers the best refrigerant leak monitoring available, with industry-leading MDL of 1 ppm for halogenated gases, the fastest sampling frequency and the widest range of refrigerants accurately detected.

The Single-Zone is the ideal tool for early detection of leaks from specific target areas such as chiller rooms and mechanical rooms. The low MDL enables detection of leaks that other instruments can't find, enhances effective refrigerant management and delivers cost savings through reduced refrigerant recharge and enhanced energy efficiency. Communication interfaces are available allowing easy integration into BMS/BAS systems and remote monitoring solutions.

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TECHNICAL DATA





INDUSTRIAL



COMMERCIAL

REFRIGERATION

a digital display with dedicated 4-20 mA DC analog output (floating ground) System Noise Less than 40dB at 10 ft (3m) Response Time 9 to 90 seconds, depending on sample length tube Sampling Mode Automatic or manual (hold) Re-Zero Every 5 minutes or on 0.5 degree C internal temperature change Monitoring Distance 1.200 ft max (500 ft for NH) for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32° to 122° F (0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6.562 ft (2.000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 6101-1, CAS 22.2 No. 6101-1, EN 14624, CE Mark MEASUREMENT UNIT Power Agdrsz Agdrsz FA188, FC72, H1211, H12332D, H12342E, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-407A, R-	PRODUCT ATTRI	BUTES	DESCRIPTION
Dimenisions 13.7* x 7.7* x 3.6* (347.98 mm x 195.58 mm x 91.44 mm) Weight 7 lbs (3.175 kg) User Interface Front panel w/3 indicator lights: Green - power on, normal: Vellow - fault; Vellow Flashing - system fault; Red Flashing - point has exceeded alarm set Alarms 3 SPD1, 3 amp, 250 VAC rated alarm relays and 1 SPD1, 3 amp, 250 VAC rated system fault relay, pli a digital display with dedicated 4-20 mA DC analog output (floating ground) System Noise Less than 40dB at 10 ft (3m) Response Time 9 to 90 seconds, depending on sample length tube Sampling Mode Automatic or manual (hold) Re-Zero Every 5 minutes or on 0.5 degree C internal temperature change Monitoring Distance 1.200 ft max (900 ft for NHJ for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32* to 122* Ft 00 50* C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6,562 ft (2,000 m) Power 100 to 240 VAC, 50× 60 Hz, 20 W MOMS UI 61010-1, CAS 22 2 No 61010-1, FN 14524, CE Mark MEASUREMENT UNIT DESCRIPTION Rds.S.Z Anmonia 25 No 700, R-10, R-1028, R	Sensor		Proprietary non-dispersive infrared (NDIR) technology
Weight 7 lbs (3:175 kg) User Interface Front panel will indicator lights. Green - power on, normal, Vellow - fault, Vellow Flashing - system fault; Red Flashing - point has exceeded alarm set. Alarms 3 SPD1, 3 amp, 250 VAC rated alarm melays and 1 SPDT, 3 amp, 250 VAC rated system fault relay, pli a digital display with dedicated 4-20 mA DC analog output (floating ground) System Noise Less than 40dB at 10 ft (3m) Response Time 9 to 90 seconds, depending on sample length tube Sampling Mode Automatic or manual (hold) Re-Zero Every 5 minutes or on 0.5 degree C internal temperature change Monitoring Distance 1.200 ft max (S00 ft for NH-J for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32* to 122* ft (0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6,562 ft (2,000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library FA188, FC72, H1211, H123427, H12347E, H1234, R-123, R-124, R-125, R-134a, R-21, R-22, R-224, R-242R, R-242R, R-243R, R-448R, R-4448, R-4498	Display Resolution		1 ppm
User Interface Front panel w3 indicator lights: Green - power on, normal; Yellow - fault; Yellow Flashing - system fault; Red Flashing - point has exceeded alarm set Alarms 3 SPDT, 3 amp, 250 VAC rated alarm relays and 1 SPDT, 3 amp, 250 VAC rated system fault relay, pli a digital display with dedicated 4.20 mA DC analog output (floating ground) System Noise Less than 400B at 10 ft (3m) Response Time 9 to 90 seconds, depending on sample length tube Sampling Mode Automatic or manual (hold) Re-Zero Every 5 minutes or on 0.5 degree C internal temperature change Monitoring Distance 1.200 ft max (500 ft for NH.) for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32° to 122° F (0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6.562 ft (2.000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL G1010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library FA188, FC72, H1211, H12332D, H123475, H123427, H12342, H23, R214, R-125, R237, R-238, R-247, R-236, R-247, R-246, R-407R, R-	Dimensions		13.7" x 7.7" x 3.6" (347.98 mm x 195.58 mm x 91.44 mm)
Alarms 3 SPDT, 3 amp, 250 VAC rated alarm relays and 1 SPDT, 3 amp, 250 VAC rated system fault relay, pli a digital display with dedicated 4:20 mA DC analog output (floating ground) System Noise Less than 40dB at 10 ft (3m) Response Time 9 to 90 seconds, depending on sample length tube Sampling Mode Automatic or manual (hol0) Re-Zero Every 5 minutes or on 0.5 degree C internal temperature change Monitoring Distance 1.200 ft max (500 ft for NH-J for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters relained Operating Temperature 32° to 122° F (0 to 50° C) Ambitoring Notance 1.00 ft max (500 ft for NH-J for combined length of sample and exhaust tubing (each zone) Power Safety Mode Folly automatic system reset. All programmed parameters relained Operating Temperature 32° to 122° F (0 to 50° C) Ambitent Humidity 5% to 90% RH non-condensing Altitude Limit 6.562 ft (2.000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UE 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Response Fine FA188, FC72, H1211, H12332D, H1234YE, H1234YE, H1301, H2402, H2P, N128, N4710, R-220, R-407E, R-	Weight		7 lbs (3.175 kg)
a digital display with dedicated 4-20 mA DC analog output (floating ground) System Noise Less than 40dB at 10 ft (3m) Response Time 9 to 90 seconds, depending on sample length tube Sampling Mode Automatic or manual (hold) Re-Zero Every 5 minutes or on 0.5 degree C internal temperature change Monitoring Distance 1,200 ft max (500 ft for NH,) for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32° to 122° f (0 to 50° C) Ambient Humidity 5,652 ft (2,000 m) Power 500 to 240 VAC, 50/60 Hz, 20 W Approvals ULI 61010-1, CAS 22,2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT Description N7300, N7300, N7300, N7300, N7300, N740, R4028, R4048, R4078, R4072, R408, R4094, R4094, R4104, R412, R12, R123, R114, R12, R123, R124, R123, R213, R414, R12, R123, R213, R414, R42, R422, R4522, R500, R502, R503, R507, R508, R, S134, R, S134, R, S1444, R42, R422, R4522, R500, R502, R502, R502, R502	User Interface		
Response Time 9 to 90 seconds, depending on sample length tube Sampling Mode Automatic or manual (hold) Re-Zero Every S minutes or on 0.5 degree C internal temperature change Monitoring Distance 1.200 ft max (500 ft for NH ₂) for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Opperating Temperature 32° to 122° ft (to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6,562 ft (2,000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FAI88, FC72, H1211, H1233ZD, H1234VF, H1334TZ, H1328, H24, R425R, R407R, R407C, R407C, R407C, R407C, R4202N, R420A, R407A, R407A, R407C, R407C, R423R, R448A, R445A, R452R, R450A, R425R, R409A, R440A, R420A, R407A, R407A, R407C, R407C, R407C, R423R, R425A, R452R, R450R, R502, R503, R507, R508B, R513A,	Alarms		3 SPDT, 3 amp, 250 VAC rated alarm relays and 1 SPDT, 3 amp, 250 VAC rated system fault relay, plus a digital display with dedicated 4-20 mA DC analog output (floating ground)
Sampling Mode Automatic or manual (hold) Re-Zero Every 5 minutes or on 0.5 degree C internal temperature change Monitoring Distance 1,200 ft max (500 ft for NH ₃) for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32° to 122° F(0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6,562 ft (2,000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 6101-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Rescurrence FA188, FC72, H1211, H1233ZD, H1234YF, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 M200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-126, R-407A,	System Noise		Less than 40dB at 10 ft (3m)
Re-Zero Every S minutes or on 0.5 degree C internal temperature change Monitoring Distance 1,200 ft max (500 ft for NH ₃) for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32° to 122° F (0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6,562 ft (2,000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Reasuring Range FA188, FC72, H1211, H12342D, H1234YF, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-125, R-134a, R-21, R-22, R-227, R-208, R-205R, R-32, R-401A, R-402A, R-40	Response Time		9 to 90 seconds, depending on sample length tube
Monitoring Distance 1,200 ft max (500 ft for NHJ for combined length of sample and exhaust tubing (each zone) Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32° to 122° F (0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6.562 ft (2.000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 6101-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H12332D, H1234VE, H1324E, H1301, H2402, HEP, N1230, N4710, N710, N7200, N7300, N7600, R-11, R-113, R-114, R-123, R-124, R-125, R-134a, R-21, R-22, R-227, R-23, R-236fa, R-245fa, R-32, R-401A, R-402A, R-402A, R-402A, R-407E, R-408A, R-409A, R-407A, R-402A, R-402A, R-402A, R-402A, R-402A, R-425A, R-327A, R-407E, R-408A, R-409A, R-407A, R-402A, R-422A, R-422D, R-424A, R-426A, R-427A, R-438A, R-449A, R-449A, R-402A, R-452A, R-422D, R-424A, R-426A, R-427A, R-438A, R-449A, R-407E, R-408A, R-409A, R-4010A, R-402A, R-402A, R-426A, R-427A, R-438A, R-449A, R-407E, R-452A, R-452B, R-500, R-503, R-507, R-508B, R-513A, R-514A, R-12332d Measuring Range HGM-SZ All gases 0 to 10,000 ppm Accuracy HGM-SZ All gases 0 to 10,000 ppm Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±2% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading from 0-1,000 ppm (Re11, R-21, R-32, R	Sampling Mode		Automatic or manual (hold)
Power Safety Mode Fully automatic system reset. All programmed parameters retained Operating Temperature 32° to 122° F (0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6.562 ft (2.000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H1233ZD, H1234YF, H1234ZE, H1301, H2402, HEP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-125, R-134a, R-21, R-22, R-227 R-23, R-236r, R-245ra, R-32, R-401A, R-420A, R-402B, R-400A, R-407F, R-403R, R-4	Re-Zero		Every 5 minutes or on 0.5 degree C internal temperature change
Operating Temperature 32* to 122* F (0 to 50° C) Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6,562 ft (2,000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H1233ZD, H1234YF, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-425A, R-407A, R-407C, R-407F, R-4088, R-409A, R-402A, R-402B, R-404A, R-407A, R-402C, R-407T, R-4088, R-409A, R-402A, R-402B, R-404A, R-407A, R-402C, R-407T, R-4088, R-409A, R-402B, R-404A, R-425A, R-435A, R-448A, R-449A R-452A, R-452B, R-500, R-502, R-503, R-507, R-508B, R-513A, R-514A, R-1233zd Measuring Range HGM-SZ Ammonia (NH_J), R717 C0_2-SZ Carbon Dioxide (CO,J), R744 HGM-SZ Measuring Range HGM-SZ All gases 0 to 10,000 ppm Accuracy HGM-SZ All gases 0 to 10,000 ppm Accuracy HGM-SZ 1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading from 0-1,000 ppm (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 0 ppm ±10% of reading from 0-1,000 ppm AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm Ease (mading 4,000 to 8,000 ppm CO_2	Monitoring Distance		1,200 ft max (500 ft for $\rm NH_3$) for combined length of sample and exhaust tubing (each zone)
Ambient Humidity 5% to 90% RH non-condensing Altitude Limit 6,552 ft (2,000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H123ZD, H1234YE, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H123ZD, H1234YE, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 Maximum CO ₂ -SZ FA188, FC72, H1211, H123ZD, H234YE, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 Measuring Range HGM-SZ FA188, FC72, H1211, H123ZD, R-401A, R-402A, R-407A, R-407F, R-407F, R-408A, R-409A, R-409A, R-407A, R-407F, R-408A, R-409A, R-409A, R-407A, R-402A, R-402A, R-402A, R-402A, R-402A, R-422A, R-452A, R-	Power Safety Mode		Fully automatic system reset. All programmed parameters retained
Altitude Limit 6,562 ft (2,000 m) Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H1233ZD, H12347F, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-125, R-134a, R-21, R-22, R-227 R-23, R-236fa, R-245fa, R-32, R-401A, R-402A, R-402B, R-402A, R-407C, R-407F, R-408A, R-409A, R-410A, R-422A, R-422D, R-424A, R-467A, R-477A, R-438A, R-448A, R-449A R-452A, R-452B, R-500, R-502, R-503, R-507, R-508B, R-513A, R-514A, R-1233zd AGM-SZ Ammonia (NH ₃), R717 CO ₂ -SZ Carbon Dioxide (CO ₂), R744 Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Anmonia 25 to 10,000 ppm AGM-SZ Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm, m(st gases) ±1 0 ppm ±15% of reading from 0-1,000 ppm Accuracy HGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm, m(st gases) ±1 0 ppm ±15% of reading from 0-1,000 ppm Accuracy HGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm MEMSZ ±20 ppm ±10% of reading from 0-1,000 ppm, ±10% of reading from 0-1,000 ppm	Operating Temperatu	re	32° to 122° F (0 to 50° C)
Power 100 to 240 VAC, 50/60 Hz, 20 W Approvals UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H1233ZD, H1234YF, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-112, R-123, R-124, R-125, R-134a, R-21, R-22, R-227 R-23, R-236fa, R-245fa, R-32, R-401A, R-402A, R-402A, R-407A, R-407A, R-407C, F, R-408A, R-409A, R-410A, R-422A, R-422A, R-422A, R-426A, R-427A, R-436A, R-447A R-452A, R-452B, R-500, R-502, R-503, R-507, R-508B, R-513A, R-514A, R-1233zd Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Ammonia (NH ₃), R717 Co ₂ -SZ Carbon Dioxide (CO ₂), R744 Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Ammonia 25 to 10,000 ppm Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ Accuracy HGM-SZ 1 ppm ±10% of reading from 0-1,000 ppm (R-11, R-23, R-113) AGM-SZ Accuracy HGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ Accuracy HGM-SZ 1 ppm H10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ Accuracy	Ambient Humidity		5% to 90% RH non-condensing
ApprovalsUL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE MarkMEASUREMENTUNITDESCRIPTIONGas LibraryHGM-SZFA188, FC72, H1211, H1233ZD, H1234YE, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7300, N7300, R-11, R-13, R-114, R-12, R-123, R-124, R-125, R-134a, R-21, R-22, R-227 R-23, R-2361, R-2451a, R-245, R-324, R-402A, R-402B, R-404A, R-407A, R-407C, R-407F, R-408A, R-409A, R-410A, R-422A, R-422D, R-242A, R-426A, R-427A, R-438A, R-449A R-452A, R-452B, R-500, R-503, R-507, R-508B, R-513A, R-514A, R-1233zdMeasuring RangeHGM-SZAmmonia (NH ₃), R717 CO2-SZCarbon Dioxide (CO2), R744Measuring RangeHGM-SZAll gases 0 to 10,000 ppmAGW-SZAmmonia 25 to 10,000 ppmCO2-SZCarbon Dioxide 0 to 8,000 ppmAccuracyHGM-SZ1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113)AGM-SZ±20 ppm ±10% of reading from 0-1,000 ppmCO2-SZ±20 ppm ±10% of reading from 0-1,000 ppmCO2-SZ±5 ppm ±5% of reading from 0-1,000 ppmCO3-SZ±0 ppm ±10% of reading from 0-1,000 ppmCO3-SZ±20 ppm ±10% of reading from 0-1,000 ppmCO3-SZ±5 ppm ±5% of reading ppr 0-1,000 ppmCO3-SZ±5 ppm ±5% of reading ppr 0	Altitude Limit		6,562 ft (2,000 m)
MEASUREMENT UNIT DESCRIPTION Gas Library HGM-SZ FA188, FC72, H1211, H1233ZD, H1234YF, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-125, R-134a, R-21, R-22, R-237 R-23, R-236fa, R-245fa, R-32, R-401A, R-402A, R-402A, R-407A, R-407A, R-407F, R-408A, R-409A, R-410A, R-422A, R-422D, R-426A, R-427A, R-438A, R-448A, R-449A R-452A, R-452B, R-500, R-502, R-503, R-507, R-508B, R-513A, R-514A, R-1233zd AGM-SZ Ammonia (NH ₃), R717 CO ₂ -SZ Carbon Dioxide (CO ₂), R744 Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Ammonia 25 to 10,000 ppm AGM-SZ Carbon Dioxide (to 8,000 ppm Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm CO ₂ -SZ ±20 ppm ±10% of reading from 0-1,000 ppm, ±10% of reading from 1,000 to 4,000 ppm, ±15% reading 4,000 to 8,000 ppm	Power		100 to 240 VAC, 50/60 Hz, 20 W
Gas Library HGM-SZ FA188, FC72, H1211, H1233ZD, H1234YF, H1234ZE, H1301, H2402, HFP, N1230, N4710, N710 N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-123, R-124, R-425, R-134a, R-21, R-22, R-227 R-23, R-236fa, R-245fa, R-32, R-401A, R-402A, R-402B, R-404A, R-407A, R-407C, R-407F, R-408A, R-409A, R-410A, R-422A, R-422D, R-424A, R-426A, R-427A, R-438A, R-448A, R-449A R-452A, R-452B, R-500, R-502, R-503, R-507, R-508B, R-513A, R-514A, R-1233zd Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Ammonia (NH ₃), R717 C0 ₂ -SZ Carbon Dioxide (CO ₂), R744 Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Ammonia 25 to 10,000 ppm C0 ₂ -SZ Carbon Dioxide 0 to 8,000 ppm Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 0 ppm ±15% of reading with field calibration (most gases) ±1 0 ppm ±15% of reading from 0-1,000 ppm C0 ₂ -SZ ±20 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm C0 ₂ -SZ ±20 ppm ±10% of reading from 0-1,000 ppm, ±10% of reading from 0-1,000 ppm C0 ₂ -SZ ±20 ppm ±5% of reading from 0-1,000 ppm, ±10% of reading from 0-1,000 ppm, ±10% of reading from 0-1,000 ppm <tr< td=""><td>Approvals</td><td></td><td>UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark</td></tr<>	Approvals		UL 61010-1, CAS 22.2 No. 61010-1, EN 14624, CE Mark
N7200, N7300, N7600, R-11, R-113, R-114, R-12, R-124, R-125, R-134a, R-21, R-22, R-23, R-23, R-23, R-245fa, R-32, R-401A, R-402B, R-402B, R-407A, R-407A, R-407F, R-408A, R-409A, R-409A, R-422A, R-422D, R-422A, R-426A, R-427A, R-438A, R-449A R-452A, R-452B, R-500, R-502, R-503, R-507, R-508B, R-513A, R-514A, R-1233zd AGM-SZ Ammonia (NH ₃), R717 C0 ₂ -SZ Carbon Dioxide (CO ₂), R744 Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Ammonia 25 to 10,000 ppm AGM-SZ Ammonia 25 to 10,000 ppm AGM-SZ Anomonia 25 to 10,000 ppm AGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm R-402, R-4024, R	MEASUREMENT	UNIT	DESCRIPTION
Instruct (Mig), Instruction (Mig), Inst	Gas Library	HGM-SZ	R-408A, R-409A, R-410A, R-422A, R-422D, R-424A, R-426A, R-427A, R-438A, R-448A, R-449A,
Measuring Range HGM-SZ All gases 0 to 10,000 ppm AGM-SZ Ammonia 25 to 10,000 ppm CO2-SZ Carbon Dioxide 0 to 8,000 ppm Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm Temperature Drift HGM-SZ ±0.8% (R-134a) of reading per degree C between purge cycles AGM-SZ 1.5 ppm per degree C between purge cycles		AGM-SZ	Ammonia (NH ₃), R717
AGM-SZ Ammonia 25 to 10,000 ppm CO2-SZ Carbon Dioxide 0 to 8,000 ppm Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading mon 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm CO2-SZ ±50 ppm ±5% of reading from 0-1,000 ppm, ±10% of reading from 1,000 to 4,000 ppm, ±15% reading 4,000 to 8,000 ppm Temperature Drift HGM-SZ ±0.8% (R-134a) of reading per degree C between purge cycles AGM-SZ 1.5 ppm per degree C between purge cycles		CO ₂ -SZ	Carbon Dioxide (CO ₂), R744
CO2-SZCarbon Dioxide 0 to 8,000 ppmAccuracyHGM-SZ1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±10 ppm ±2% of reading with field calibration (most gases) ±10 ppm ±15% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113)AGM-SZ±20 ppm ±10% of reading from 0-1,000 ppmCO2-SZ±5 ppm ±5% of reading from 0-1,000 ppm, ±10% of reading from 1,000 to 4,000 ppm, ±15% reading 4,000 to 8,000 ppmTemperature DriftHGM-SZAGM-SZ±0.8% (R-134a) of reading per degree C between purge cyclesAGM-SZ1.5 ppm per degree C between purge cycles	Measuring Range	HGM-SZ	All gases 0 to 10,000 ppm
Accuracy HGM-SZ 1 ppm Minimum Detectable Level (MDL) (most gases) ±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading with field calibration (most gases) ±10 ppm ±15% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 0-1,000 ppm CO2-SZ ±5 ppm ±5% of reading from 0-1,000 ppm, ±10% of reading from 1,000 to 4,000 ppm, ±15% reading 4,000 to 8,000 ppm Temperature Drift HGM-SZ ±0.8% (R-134a) of reading per degree C between purge cycles AGM-SZ 1.5 ppm per degree C between purge cycles		AGM-SZ	Ammonia 25 to 10,000 ppm
±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading with field calibration (most gases) ±10 ppm ±15% of reading from 0-1,000 ppm (R-11, R-21, R-32, R-113) AGM-SZ ±20 ppm ±10% of reading from 25 to 1,000 ppm CO2-SZ ±5 ppm ±5% of reading from 0-1,000 ppm, ±10% of reading from 1,000 to 4,000 ppm, ±15% reading 4,000 to 8,000 ppm Temperature Drift HGM-SZ ±0.8% (R-134a) of reading per degree C between purge cycles AGM-SZ 1.5 ppm per degree C between purge cycles		CO ₂ -SZ	Carbon Dioxide 0 to 8,000 ppm
CO2-SZ ±5 ppm ±5% of reading from 0-1,000 ppm, ±10% of reading from 1,000 to 4,000 ppm, ±15% reading 4,000 to 8,000 ppm Temperature Drift HGM-SZ ±0.8% (R-134a) of reading per degree C between purge cycles AGM-SZ 1.5 ppm per degree C between purge cycles	A	HGM-SZ	±1 ppm ±10% of reading from 0-1,000 ppm (most gases) ±1 ppm ±2% of reading with field calibration (most gases)
Temperature Drift HGM-SZ ±0.8% (R-134a) of reading per degree C between purge cycles AGM-SZ 1.5 ppm per degree C between purge cycles		AGM-SZ	± 20 ppm $\pm 10\%$ of reading from 25 to 1,000 ppm
AGM-SZ1.5 ppm per degree C between purge cycles		CO ₂ -SZ	± 5 ppm $\pm 5\%$ of reading from 0-1,000 ppm, $\pm 10\%$ of reading from 1,000 to 4,000 ppm, $\pm 15\%$ of reading 4,000 to 8,000 ppm
	Temperature Drift	HGM-SZ	±0.8% (R-134a) of reading per degree C between purge cycles
CO₂-SZ Less than 1 ppm per degree C between purge cycles			
		AGM-SZ	1.5 ppm per degree C between purge cycles



Pittsburgh, PA USA | Dublin, Ireland | Toronto, Canada mybacharach.com | help@mybacharach.com