

**Ribble Enviro**  
*...everything gas detection*

# Data Sheet

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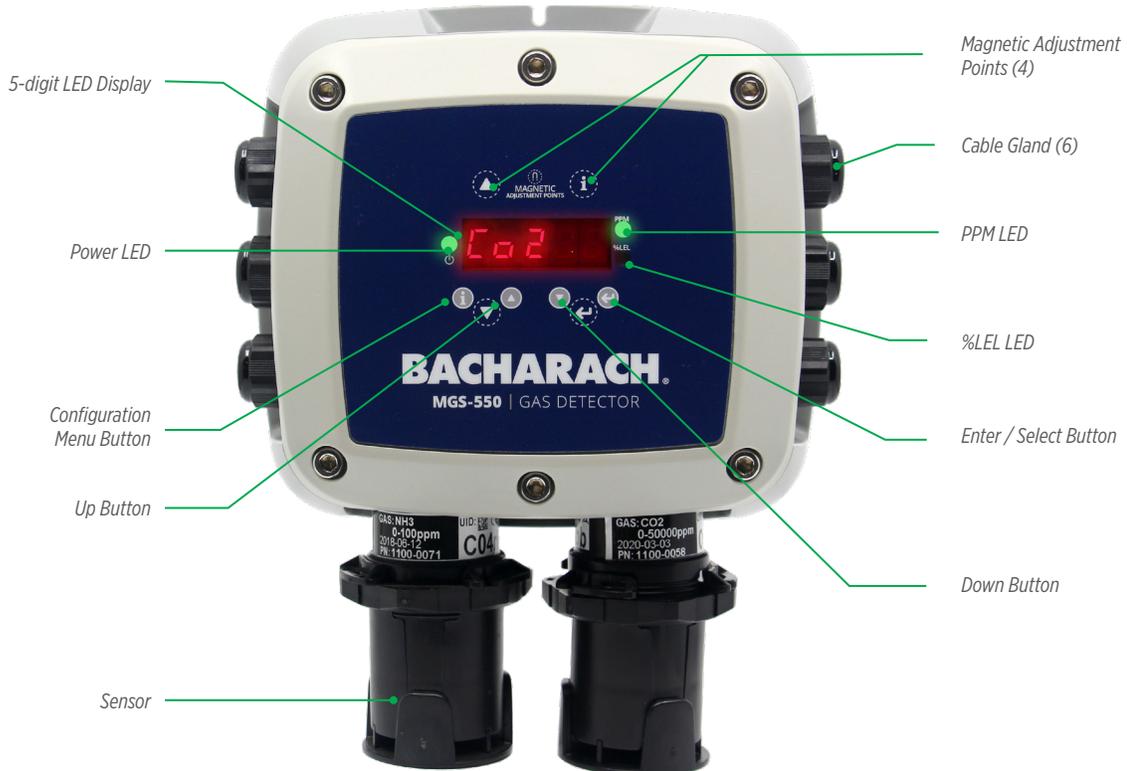
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# MGS-550 Dual Gas Detector

Safety Gas Detection for Refrigerants, Toxic, & Combustible Gases



MSA Bacharach's MGS-550 gas detector is a flexible gas detection platform that enables compliance with refrigeration safety codes (ASHRAE 15/34, EN378\* and CSA-B52).

- Two-sensor capability allows for unparalleled flexibility and enables detection of multiple target gases in a variety of ranges or locations (local and remote sensors available)
- 5-digit LED display shows real-time concentration readings and makes configuration and self-diagnostics intuitive

- Configurable analog output (4-20mA, 0-5V, 0-10V, 1-5V or 2-10V) and Modbus communications for integration with Bacharach's MGS-408 controllers or third-party BMS / BAS
- Three user-configurable relays (fault, low and high alarm) may be used to activate external beacons / sounders, ventilation or other countermeasures
- Integrated audible / visual alarms for refrigeration safety compliance – no additional hardware

\* for A1 Refrigerants

## Specifications

Sensor Channels	1 to 2
Sensitivity / Minimum Detection Level	Sensor Dependent (see opposite)
Enclosure Rating	IP66
Analog Communications	4 to 20 mA, 0 to 5V, 0 to 10V, 1 to 5V, 2 to 10V
Digital Communications	Modbus RTU via RS 485
Buzzer Volume	80 dB @ 10 cm
Product Dimensions (L x W x H)	8.3" x 8.9" x 3.4" (210 mm x 225 mm x 85 mm)
Product Weight	2 lbs (1 kg)
Sensor Type	See Table Below
Supports/Enables Compliance with Industry Codes & Regulations	ASHRAE 15, CSA B52.2, EN 378*, F-Gas Regulation
Product Performance Approvals	EMC Directives, CE Mark, UL / CSA / IEC 61010-1
Warranty	1 Year



### More Information:

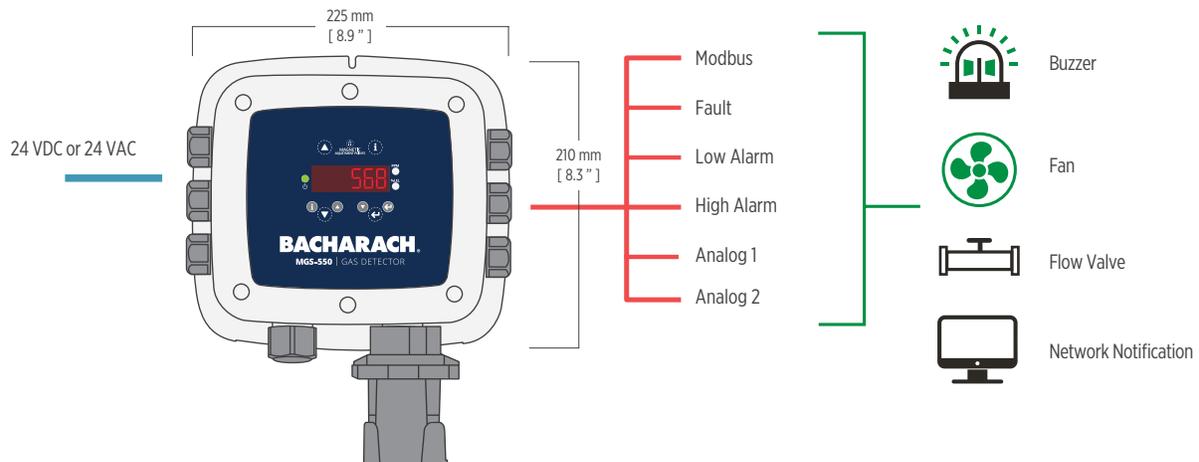
Scan the QR code to learn more about the MGS-550 and other MSA Bacharach products.

**SAFEGUARDING PEOPLE, PLACES & THE PLANET.**

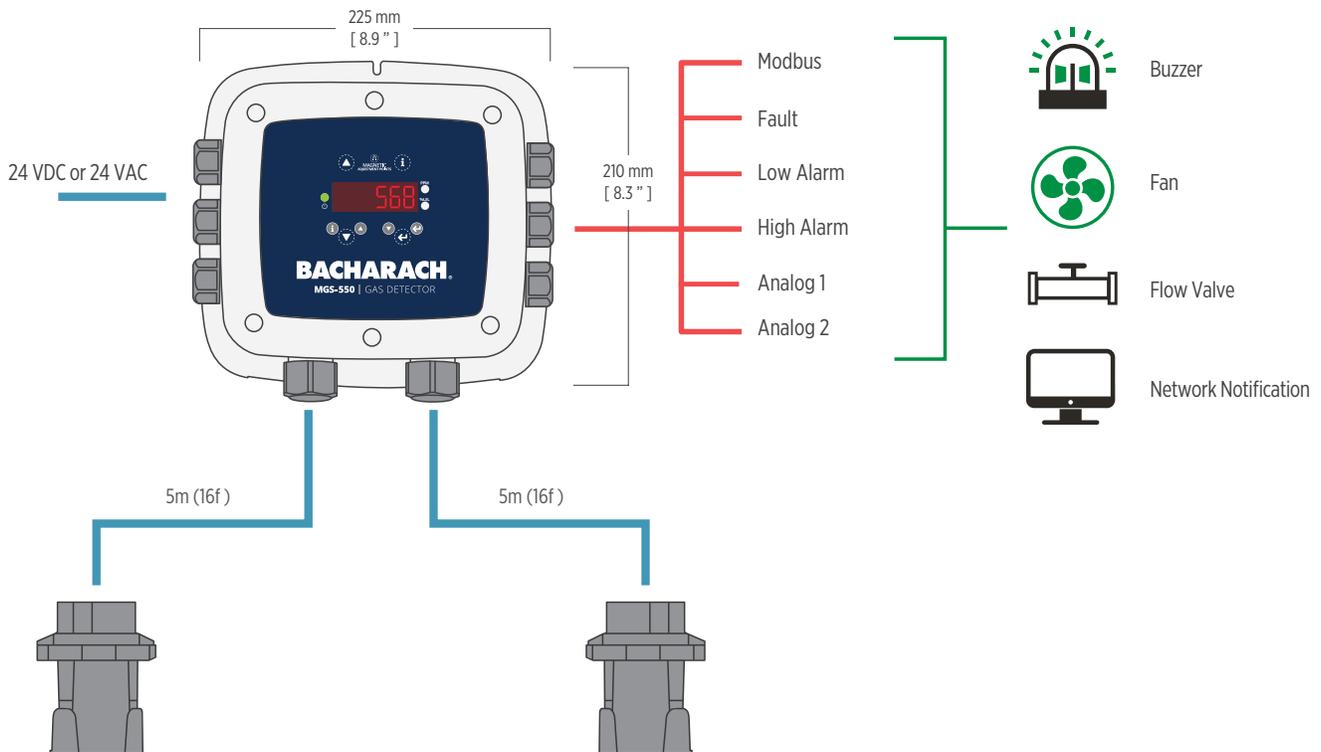
GAS	RANGE
REFRIGERANTS (HCFC, HFC, HFO)	1,000 / 10,000 ppm
CO <sub>2</sub>	5,000 / 10,000 / 20,000 / 30,000 / 40,000 / 50,000 ppm
NH <sub>3</sub> *	100** / 1,000** / 5,000** / 10,000 ppm / 100% LEL
O <sub>2</sub>	30Vol%
CO	500 ppm
COMBUSTIBLE GASES	5,000 ppm / 100% LEL
NO <sub>2</sub>	20 ppm

\* NH<sub>3</sub> available as low temperature version -40°F / 40°C (not for 5,000 ppm Electrochemical sensor)

## MGS-550 with 1 Local Sensor



## MGS-550 with 2 Remote Sensors





## MGS-550 Ordering Guide

The versatile MSA Bacharach MGS-550 can be configured in a number of ways to suit your particular application. Options include single and double local sensors, single local and single remote sensors or simply single or double remote sensors. Whatever you require, follow the simple ordering guide below and choose which gas detection sensors you want from the tables on these two pages:

SYSTEM	CHOOSE FROM	TOTAL PARTS	NOTES
1 LOCAL SENSOR	Column B	1	Local sensors are installed prior to shipment
2 LOCAL SENSORS	Column B + C	2	Remote sensor cable length is 5m (16 ft)*
1 LOCAL + 1 REMOTE	Column B + D	2	All enclosures are IP66 rated.
1 REMOTE	COLUMN A + D	2	Replacement sensors are pre-calibrated
2 REMOTE SENSORS	Column A + 2 from D	3	N/A

\* Do not change the length of the remote cable.

GAS	SENSOR TYPE	MDL	ALARM RANGE	A BASE UNIT, NO SENSORS	B BASE UNIT, 1 LOCAL SENSOR	C LOCAL SENSOR	D REMOTE SENSOR	PRE-CALIBRATED REPLACEMENT SENSOR*
N/A	N/A			H6600-8000	—	—	—	—
Butane	IR	5% LEL	15-100% LEL	—	H6600-8016	H6600-8816	H6600-8116	H6600-8216
Butane	CB	5% LEL	15-100% LEL	—	H6600-8039	H6600-8839	H6600-8139	H6600-8239
Carbon Monoxide / CO	EC	10 ppm	20-500 ppm	—	H6600-8080	H6600-8880	H6600-8180	H6600-8280
R-744 (CO <sub>2</sub> )	IR	250 ppm	750-5000 ppm	—	H6600-8010	H6600-8810	H6600-8110	H6600-8210
R-744 (CO <sub>2</sub> )	IR	500 ppm	1500-10000 ppm	—	H6600-8011	H6600-8811	H6600-8111	H6600-8211
R-744 (CO <sub>2</sub> )	IR	1000 ppm	3000-20000 ppm	—	H6600-8012	H6600-8812	H6600-8112	H6600-8212
R-744 (CO <sub>2</sub> )	IR	1500 ppm	4500-30000 ppm	—	H6600-8013	H6600-8813	H6600-8113	H6600-8213
R-744 (CO <sub>2</sub> )	IR	2000 ppm	6000-40000 ppm	—	H6600-8014	H6600-8814	H6600-8114	H6600-8214
R-744 (CO <sub>2</sub> )	IR	2500 ppm	7500-50000 ppm	—	H6600-8015	H6600-8815	H6600-8115	H6600-8215
R-1234yf	SC	50 ppm	150-1000 ppm	—	H6600-8052	H6600-8852	H6600-8152	H6600-8252
R-1234ze	SC	50 ppm	150-1000 ppm	—	H6600-8053	H6600-8853	H6600-8153	H6600-8253
R-50 (Methane, CH <sub>4</sub> )	IR	5% LEL	15-100% LEL	—	H6600-8017	H6600-8817	H6600-8117	H6600-8217
R-717 (Ammonia, NH <sub>3</sub> )	CB	5% LEL	15-100% LEL	—	H6600-8034	H6600-8834	H6600-8134	H6600-8234
R-717 (Ammonia, NH <sub>3</sub> )	EC	5 ppm	15-100 ppm	—	H6600-8019	H6600-8819	H6600-8119	H6600-8219
R-717 (Ammonia, NH <sub>3</sub> )	EC	50 ppm	150-1000 ppm	—	H6600-8020	H6600-8820	H6600-8120	H6600-8220
R-717 (Ammonia, NH <sub>3</sub> )	EC	250 ppm	750-5000 ppm	—	H6600-8021	H6600-8821	H6600-8121	H6600-8221
Nitrogen Dioxide (NO <sub>2</sub> )	EC	1 ppm	3-20 ppm	—	H6600-8024	H6600-8824	H6600-8124	H6600-8224

GAS	SENSOR TYPE	MDL	ALARM RANGE	A BASE UNIT, NO SENSORS	B BASE UNIT, 1 LOCAL SENSOR	C LOCAL SENSOR	D REMOTE SENSOR	PRE-CALIBRATED REPLACEMENT SENSOR*
Oxygen, O <sub>2</sub>	EC	1.5% Vol	4.5-30% Vol	-	H6600-8025	H6600-8825	H6600-8125	H6600-8225
R-290 (Propane)	IR	5% LEL	15-100% LEL	-	H6600-8018	H6600-8818	H6600-8118	H6600-8218
R-134a	SC	50 ppm	150-1000 ppm	-	H6600-8042	H6600-8842	H6600-8142	H6600-8242
R-134a	SC	500 ppm	1000-10000 ppm	-	H6600-8056	H6600-8856	H6600-8156	H6600-8256
R-290	SC	250 ppm	1000-5000 ppm	-	H6600-8070	H6600-8870	H6600-8170	H6600-8270
R-32	SC	50 ppm	150-1000 ppm	-	H6600-8041	H6600-8841	H6600-8141	H6600-8241
R-404A	SC	50 ppm	150-1000 ppm	-	H6600-8043	H6600-8843	H6600-8143	H6600-8243
R-404A	SC	500 ppm	1000-10000 ppm	-	H6600-8057	H6600-8857	H6600-8157	H6600-8257
R-407A	SC	50 ppm	150-1000 ppm	-	H6600-8044	H6600-8844	H6600-8144	H6600-8244
R-407A	SC	500 ppm	1000-10000 ppm	-	H6600-8058	H6600-8858	H6600-8158	H6600-8258
R-407C	SC	50 ppm	150-1000 ppm	-	H6600-8045	H6600-8845	H6600-8145	H6600-8245
R-407C	SC	500 ppm	1000-10000 ppm	-	H6600-8059	H6600-8859	H6600-8159	H6600-8259
R-407F	SC	50 ppm	150-1000 ppm	-	H6600-8046	H6600-8846	H6600-8146	H6600-8246
R-407F	SC	500 ppm	1000-10000 ppm	-	H6600-8060	H6600-8860	H6600-8160	H6600-8260
R-410A	SC	50 ppm	150-1000 ppm	-	H6600-8047	H6600-8847	H6600-8147	H6600-8247
R-410A	SC	500 ppm	1000-10000 ppm	-	H6600-8061	H6600-8861	H6600-8161	H6600-8261
R-422A	SC	50 ppm	150-1000 ppm	-	H6600-8048	H6600-8848	H6600-8148	H6600-8248
R-422A	SC	500 ppm	1000-10000 ppm	-	H6600-8062	H6600-8862	H6600-8162	H6600-8262
R-422D	SC	50 ppm	150-1000 ppm	-	H6600-8049	H6600-8849	H6600-8149	H6600-8249
R-422D	SC	500 ppm	1000-10000 ppm	-	H6600-8063	H6600-8863	H6600-8163	H6600-8263
R-427A	SC	50 ppm	150-1000 ppm	-	H6600-8050	H6600-8850	H6600-8150	H6600-8250
R-448A	SC	50 ppm	150-1000 ppm	-	H6600-8076	H6600-8876	H6600-8176	H6600-8276
R-449A	SC	50 ppm	150-1000 ppm	-	H6600-8077	H6600-8877	H6600-8177	H6600-8277
R-452A	SC	50 ppm	150-1000 ppm	-	H6600-8078	H6600-8878	H6600-8178	H6600-8278
R-507	SC	50 ppm	150-1000 ppm	-	H6600-8051	H6600-8851	H6600-8151	H6600-8251
R-507	SC	500 ppm	1000-10000 ppm	-	H6600-8065	H6600-8865	H6600-8165	H6600-8265
R-513A	SC	50 ppm	150-1000 ppm	-	H6600-8079	H6600-8879	H6600-8179	H6600-8279
R-600	SC	250 ppm	1000-5000 ppm	-	H6600-8071	H6600-8871	H6600-8171	H6600-8271
H <sub>2</sub> (Hydrogen)	EC	500 ppm	1500-10000 ppm	-	H6600-8033	H6600-8833	H6600-8133	H6600-8233

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice. MSA is a registered trademark of MSA Technology, LLC in the US, Europe, and other Countries. For all other trademarks visit <https://us.msasafety.com/Trademarks>.

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