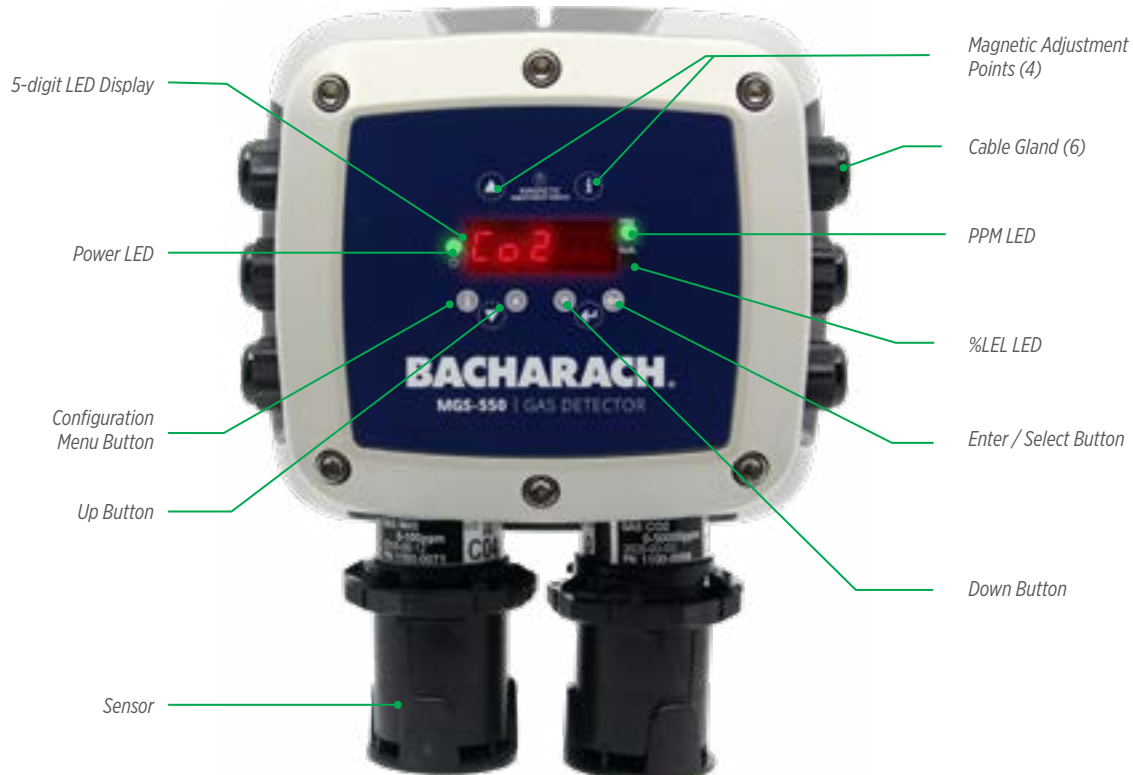


# MGS-550 Dual Gas Detector

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:

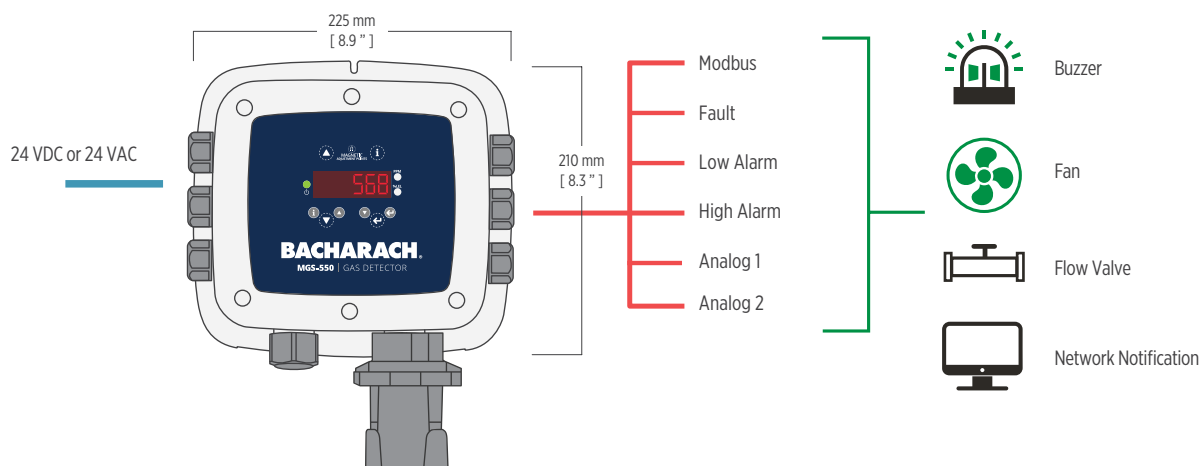
Scan the QR code to learn more about the MGS-550 and other MSA Bacharach products.

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

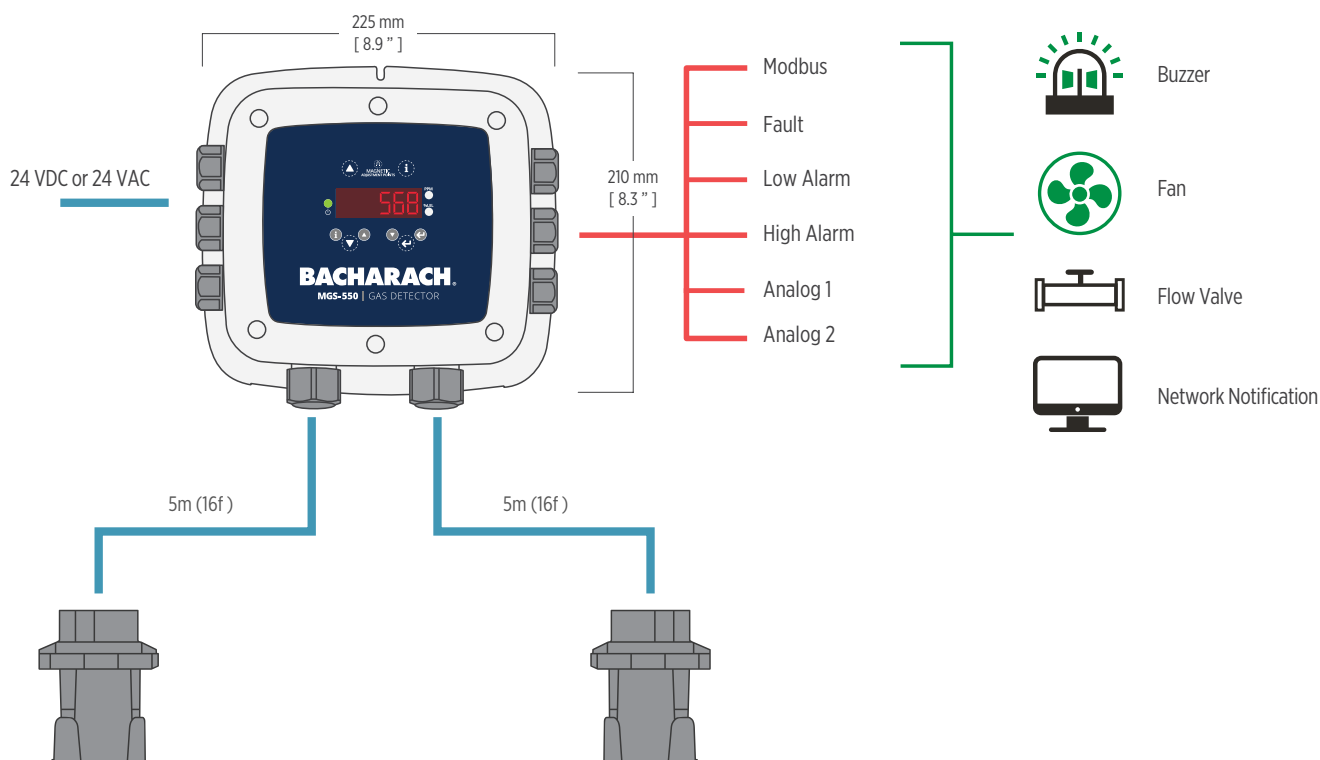
| GAS                           | RANGE                                                  |
|-------------------------------|--------------------------------------------------------|
| REFRIGERANTS (HCFC, HFC, HFO) | 1,000 / 10,000 ppm                                     |
| CO <sub>2</sub>               | 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   | 150-1000p 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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