Bacharach® MGS-400 Series Gas Detectors

Detection for Refrigerants, Toxic and Combustible Gases

MSA

The Safety Company

AQUALEAK

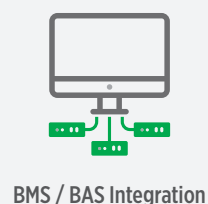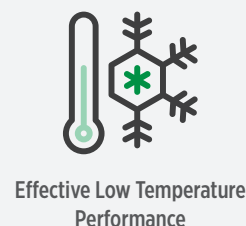Controllers

Gas Detectors

SAFEGUARDING
PEOPLE, PLACES, & THE PLANET

REFRIGERANT SAFETY COMPLIANCE
made simple.

Effective Low Temperature Performance

Intuitive Installation

Bluetooth Connectivity

BMS / BAS Integration

Modern refrigeration systems are designed to be efficient and leak free, but improper installation, inadvertent damage or mechanical wear can result in potentially hazardous leaks. With their rapid response time, low-temperature performance (-40 °F / 50°C) and integrated audio & visual alarms, MGS-400 Series gas detectors make compliance with safety regulations simple and easy.

1. **Multiple Cable Gland Entries**
2. **Flush Mounted Sensors**
3. **IP41 or IP66-Rated Enclosure**

Machinery Rooms | **Walk-in Freezers & Cold Rooms** | **Industrial Cold Storage** | **Chiller Rooms**

Product Selection Guide	MGS-410	MGS-450	MGS-460
ENCLOSURE RATING	IP66	IP41 OR IP66	IP66
DIGITAL COMMUNICATIONS *(MODBUS COMMUNICATIONS TO BMS / BAS)*	✓	✓	✓
ANALOG COMMUNICATIONS	—	✓	✓
RELAYS *(CORRESPONDING TO FAULT, LOW ALARM AND HIGH ALARM)*	—	3	3
REMOTE SENSOR	—	—	✓

MGS-410   MGS-450   MGS-460

Integrated Perimeter Strobe

MGS-410 Gas Detector

- Integrated audio & visual alarms comply with safety regulations - no additional hardware
- Maintains performance in temperatures as cold as -40° F / 50°C
- Modbus RTU interface, BMS / BAS connectivity

MGS-450 Gas Detector

- Integrated audio & visual alarms comply with safety regulations - no additional hardware
- Maintains performance in temperatures as cold as -40° F / 50°C
- IP41 and IP66 rated ABS enclosures available
- Three relays, fully configurable, correspond to alarm thresholds (Hight / Low) and fault status
- Modbus RTU interface, analog, BMS / BAS connectivity

MGS-460 Gas Detector

- Integrated audio & visual alarms comply with safety regulations - no additional hardware
- Maintains performance in temperatures as cold as -40° F / 50°C
- Remote sensor for monitoring for leaks in inaccessible areas
- Three relays, fully configurable, correspond to alarm thresholds (Hight / Low) and fault status
- Modbus RTU interface, analog, BMS / BAS connectivity

MGS-402 Controller

- LED status indication for "at-a-glance" system /alarm status
- Seamless integration of power / communications for up to two MGS-410 Gas Detectors
- Modbus RTU Master / Slave provides seamless integration from connected gas detectors to many third-party BMS / BAS
- Audible and visual alarms enable compliance with ASHRAE 15 / EN 378 - no additional hardware required

MGS-408 Controller

- Capable of powering up-to 8 gas detectors
- Displays real time data (status / gas measurement) from connected instruments
- Retains alarm & status history of connected gas detectors
- Modbus RTU interface, analog, BMS / BAS connectivity

MGS-400 Series App

The MSA Bacharach MGS-400 App allows users to configure, maintain and interface with compatible MGS-400 gas detectors:
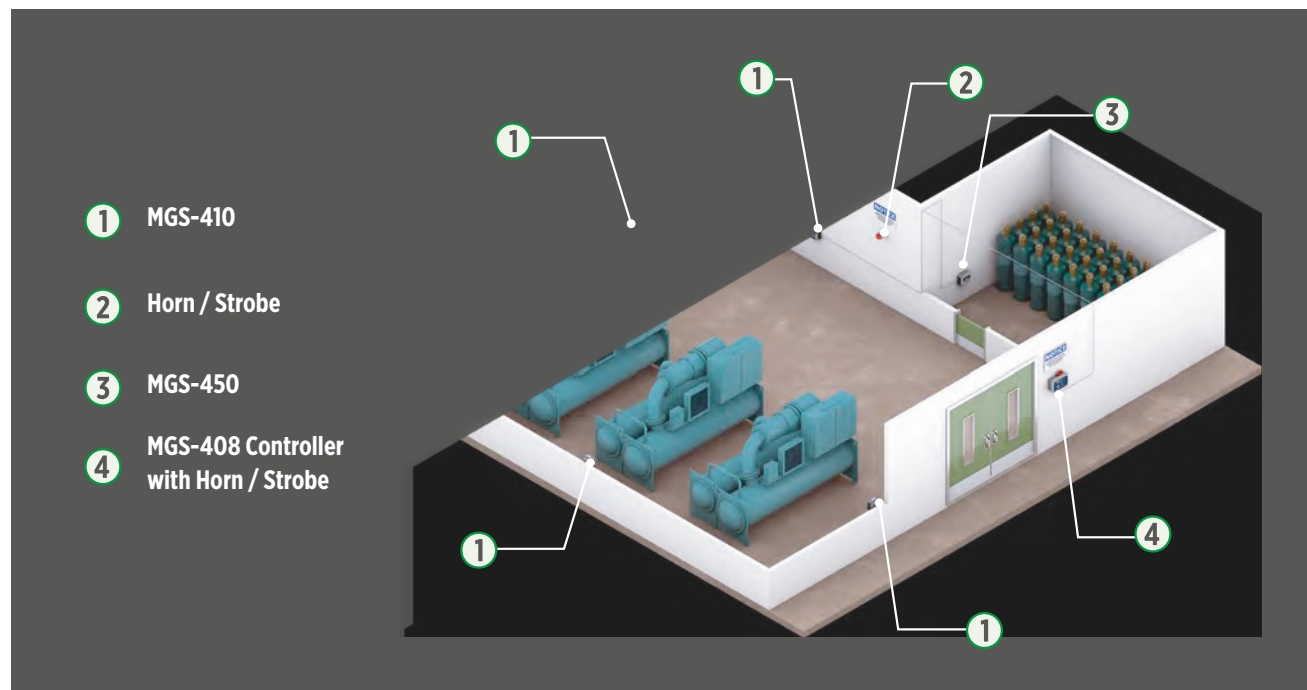
- **Configuration** (Rename device, define alarm thresholds, adjust Modbus settings, configure relay behavior and manage analog output settings).
- **Maintenance** (Test LED/buzzer function, relays, and analog output level).
- **Calibration** (View sensor type, serial number and "Calibration Due" timer and initiate zero / span calibrations with customizable field calibration certificate).
- **Intuitive Interface** (View current gas measurement and acknowledge alarm / fault status).

To learn more, visit *MyBacharach.com/PCA400*

Gas Detection Library

- CO
- CO$_2$
- HFO1234YF
- HFO1234ZE
- R-50 (Methane)
- R-717 (Ammonia)
- NO$_2$
- O$_2$ (Low Alarm)
- R-1234yf

- R-1234ze
- R-134a
- R-22
- R-290 (Propane)
- R-32
- R-404A
- R-407A
- R-407C
- R-407F

- R-410A
- R-422
- R-422D
- R-427A
- R-434A
- R-448A
- R-449A
- R-450A
- R-452A

- R-452B
- R-454A
- R-454B
- R-454C
- R-455A
- R-507A
- R-513A
- R-600 (Butane)

Mechanical Room Configuration

- **1** MGS-410
- **2** Horn / Strobe
- **3** MGS-450
- **4** MGS-408 Controller with Horn / Strobe

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit **MSAsafety.com/offices**.

For further product information and project enquiries, please contact Aqualeak:
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