

# AquiTron

## AT-MGS-400 Series gas detectors

detection for refrigerants, toxic and combustible gases



### INTUITIVE REFRIGERANT SAFETY COMPLIANCE

- ENABLES COMPLIANCE WITH BS EN 378  
ASHRAE 15, & CSA B-52
- INTEGRATED AUDIO / VISUAL ALARMS
- MOBILE APP INTERFACE FOR EASY COMMISSIONING  
AND MAINTENANCE

**aquilar**  
leak detection solutions

# Refrigerant Safety Compliance

has never been more intuitive.

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°C) and integrated audio & visual alarms, AT-MGS-400 Series gas detectors make compliance with safety regulations simple and easy.

**Machinery Rooms**

**Walk-in Freezers  
& Cold Rooms**

**Industrial Cold Storage**

**Chiller Rooms**



## All Gas Detectors Include:



**EFFECTIVE**  
LOW TEMPERATURE  
PERFORMANCE



**INTUITIVE**  
INSTALLATION



**BLUETOOTH**  
CONNECTIVITY



**BMS / BAS**  
INTEGRATION

PRODUCT SELECTION GUIDE	AT-MGS-410	AT-MGS-450	AT-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	—	—	✓

# Features



AT-MGS-410



AT-MGS-450



AT-MGS-460

## AT-MGS-410 Gas Detector

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

## AT-MGS-450 Gas Detector

- Integrated audio & visual alarms comply with safety regulations — no additional hardware
- Maintains performance in temperatures as cold as -40° 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

## AT-MGS-460 Gas Detector

- Integrated audio & visual alarms comply with safety regulations — no additional hardware
- Maintains performance in temperatures as cold as -40° 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



## AT-MGS-402 Controller

- LED status indication for “at-a-glance” system / alarm status
- Seamless integration of power / communications for up to two AT-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 BS EN 378 / ASHRAE 15 - no additional hardware required



## AT-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



# Application Guide

## Mechanical Equipment Rooms

### Mechanical Room Gas Detector Selection Guide

	AT-MGS-400	AT-MGS-550
Sampling Type	Diffusion	
Temperature Range	-40 °C to +50 °C	-30 °C to +40 °C
Combustible Gases	•	•
Stability & Accuracy	Standard	Standard
Sensor Channels	1	2
Minimum Detection Level	50 or 200 ppm typical	50 or 200 ppm typical
User Interface	Mobile App	Local Display
Parasense Cloud Portal	—	



AT-MGS-450



AT-MGS-410



AT-MGS-460



Remote Sensor

### AT-MGS-400 Series

Gas Detection Controller & Multi-Device Platform for a Wide Range of Applications

#### AT-MGS-400 Series Gas Detectors

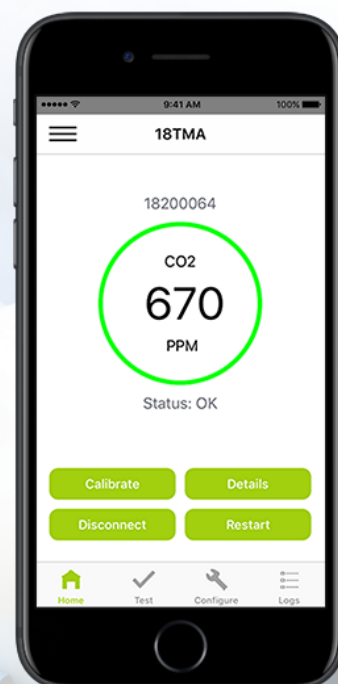
- Mobile user app interface
- Plug-and-play pre-calibrated sensor modules
- Temperature-compensated measurements down to -40° F/C
- Digital and analog communications
- Onboard A/V alarms
- IP41 and IP66 versions
- Remote sensor capability

### MGS-400 MOBILE APP

The MGS-400 App allows users to configure, maintain and interface with compatible AT-MGS-400 gas detectors. Once a Bluetooth connection has been established, the app replaces the need for specialty training/tools and makes compliance with safety standards (BS EN 378, ASHRAE 15) easy and effective.

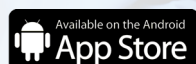
#### Features include:

- 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).



MGS-400 Mobile App

**DOWNLOAD TODAY**



# Application Guide



## AT-MGS-550

Dual-Gas Detector with Remote Sensors

- Flexible two-sensor capability, local and / or remote
- Two analog outputs and Modbus RTU interface
- Three fully configurable, user-assignable relays
- Magnetic wand enables easy, non-intrusive configuration / calibration
- IP66-rated ABS enclosure provides protection from dust and water
- Works with AT-MGS-408

Optional External Strobe



## AT-MGS-408 Gas Detection Controller

8-Channel Controller

- Centralized power and alarming for up to 8 gas sensors, including the AT-MGS-410, AT-MGS-450, AT-MGS-460 and AT-MGS-550
- LEDs and display screen provide a real-time at-a-glance visualization of entire gas detection system alarm status
- Modbus master and slave capabilities allow device to gather full set of data from connected gas detectors and relay to facility's BMS / BAS
- 3 Relays (*fault, low alarm, high alarm*) and integrated horn / strobe allow controller to activate ventilation or other counter measures.

Integrated Perimeter Strobe



## AT-MGS-402 Gas Detection Controller

2-Channel Controller

- Centralized power and alarming for up to 2 AT-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 BS EN 378 - AHSRAE 15 no additional hardware required.



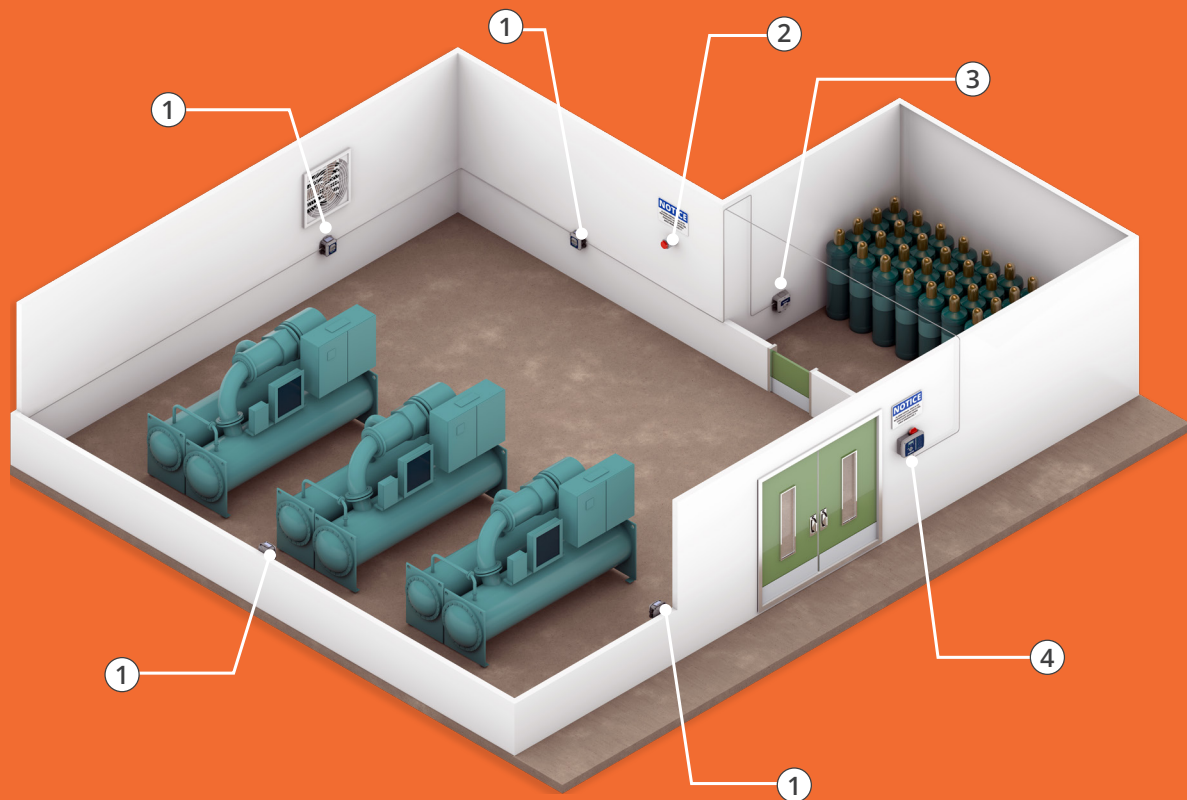
## Supported Gas Detection by Product

● AT-MGS-400 (410 / 450 / 460)

● AT-MGS-550

CO	●	●	O <sub>2</sub>	●	R-407C	●	●	R-452A	●	●
CO <sub>2</sub>	●	●	O <sub>2</sub> (Low Alarm)	●	R-407F	●	●	R-452B	●	
Ethylene (C <sub>2</sub> H <sub>4</sub> )	●		R-1234yf	●	●	R-410A	●	●	R-454A	●
HFO1233zd(E)	●		R-1234ze	●	●	R-422	●	●	R-454B	●
HFO1234YF	●	●	R-134a	●	●	R-422D	●	●	R-454C	●
HFO1234ZE	●		R-22	●	●	R-427A	●	●	R-455A	●
LPG	●	●	R-290 (Propane)	●	●	R-434A	●		R-507	●
R-50 (Methane)	●	●	R-32	●	●	R-448A	●	●	R-507A	●
NH <sub>3</sub> / R-717 (Ammonia)	●	●	R-404A	●	●	R-449A	●	●	R-513A	●
NO <sub>2</sub>	●	●	R-407A	●	●	R-450A	●		R-600 (Butane)	●

## AT-MGS-400 SERIES EXAMPLE: MECHANICAL ROOM CONFIGURATION



- ① AT-MGS-410
② SOUNDER / BEACON
③ AT-MGS-450
④ AT-MGS-408 CONTROLLER WITH SOUNDER / BEACON



Unit 30, Lawson Hunt Industrial Park,  
 Broadbridge Heath, Horsham, West Sussex, RH12 3JR  
 +44 (0) 1403 216100  
 info@aquilar.co.uk  
 www.aquilar.co.uk

### CAN WE HELP YOU?

If you have a project that Aquilar can assist with please call us on 01403 216100.