

# AquiTron

## AT-MGS-550

Refrigerant Gas Detector



**DATA SHEET**



**aquilar**  
leak detection solutions



# AT-MGS-550

## For Industrial Applications

The AT-MGS-550 advanced gas detector can utilise any combination of sensor technologies, including electrochemical, semiconductor (MOS), catalytic bead or infrared, in a single platform for unparalleled detection capability. It meets ASHRAE 15 and EN 378 requirements.

### DESCRIPTION

The AT-MGS-550 leak detector combines electrochemical, semiconductor, catalytic bead and infrared sensors into one platform to support leak detection for the new low GWP (Global Warming Potential) refrigerant blends as well as natural refrigerants to enable gas leak detection in the often harsh environments of industrial refrigeration.

The AT-MGS-550 can easily be integrated into any building management system (BMS). The Modbus RTU interface allows the user to program and configure the unit remotely through the BMS. Remote access gives complete control to the user when using Modbus. Alternatively, electrical current or volt analogue output provides an industry standard reading using 4-20mA.

Having three integrated relays within each instrument reduces the need for having to wire alarm devices back to a central control system. Because of the integrated relays, the AT-MGS-550 can be operated as a stand-alone system. Each relay can be individually programmed to trigger alarm devices and actions separately or as a redundant system.

The straightforward menu structure is identical regardless of the type of sensors used, reducing the costs and amount of time for training required upon installation or during maintenance.

The AT-MGS-550 offers the flexibility of adding a second sensor at any point in time without the need for any additional controllers. Any sensor can be remotely mounted from the main instrument to a distance of 5 meters. It meets the requirements of EN 378 and ASHRAE 15.

### FEATURES & BENEFITS

The AT-MGS-550 is designed for simple installation and maintenance. Design features include:

- **One or two sensor capability** - Detects two gases and/or in two locations with one instrument

- **Remote sensor capabilities** - Flexible placement in hard to reach areas
- **Analogue and digital interface** - Ease of integration with multiple control devices
- **On-board relays** - Connects to local alarm devices for saving costs on installation
- **Magnetic wand** - Non-intrusive configuration and calibration
- **Status indicator and LED display** - Provides at-a-glance status overview and comprehensive direct user interface
- **Optional AT-MGS-408 Controller** - Create an independent, centralised alarm system with up to 6 gas detectors



## SPECIFICATIONS

Gases and Range	
Refrigerants	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>	30 Vol%
CO**	500 / 1,000 ppm
Combustible Gases	5,000 ppm / 100% LEL
C <sub>2</sub> H <sub>4</sub>	2,000 ppm
NO <sub>2</sub> ***	20 ppm
Repeatability	±5% of applied gas concentration
Display	Red 5-digit, 7-segmented LED and green status LEDs
Output	
Analogue	4 to 20 mA, 0 to 5 V, 0 to 10 V, 1 to 5 V, 2 to 10 V
Digital	Modbus RTU via RS 485
Power Supply	19.5 to 28.5 Vdc or 24 Vac ±20%; 3-wire or 4-wire



Relay	Three relays, SPDT, user assignable Rating 2 A @ 30 Vdc NO, 0.5 A @ 125 Vdc, 0.25 A @ 250 Vac, 30 W, resistive load	
Enclosure		
General purpose	ABS IP66 with four M20 × 1.5 cable glands	
Size (W×H×D) Approx		
General purpose	210 × 225 × 85 mm	
Weight Approx	GP: 1 kg; XP: 1.6 kg	
Ambient Conditions		
Temperature	Semiconductor	-40 to +50°C
	Electrochemical	-20 to + 50°C*
	Infrared	-40 to +50°C
	Catalytic Bead	-40 to +50°C
Humidity	5 to 90 % RH, non condensing	
Pressure	23.6 to 32.5 inch Hg / 800 to 1,100 mbar	

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

\*\* IP66 rated; not available in XP enclosure

\*\*\* Not IP66 rated; not available in XP enclosure

## APPROVALS



UL / CSA / IEC EN 61010-1

## GAS DETECTION LIBRARY

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

## ORDERING INFORMATION

Please contact us when enquiring for a quote or ordering any of the above products.

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