

# AquiTron

## AT-G-ALERT Refrigerant Sensor



**DATA SHEET**



**aquilar**  
leak detection solutions



# AT-G-ALERT

## Refrigerant Gas Sensor For Occupied Spaces

The all new Aquitrone AT-G-ALERT refrigerant gas sensor is designed to provide continuous monitoring in occupied spaces for refrigerants associated with high-efficiency, high volume refrigerant cooling and heating systems, such as VRF/VRV (Variable Refrigerant Flow/ Variable Refrigerant Volume) systems. Typical applications include hotels, office buildings, schools, dormitories, hospitals, homes and apartment buildings.

### SIMPLE OPERATION

The AT-G-ALERT audible and visual alarms alert occupants and simultaneously communicate to Building Management Systems (BMS). Two on-board relays can be used to close valves, activate further alarm devices and exhaust fans or initiate emergency calls to rescue teams.

### VERSATILE DESIGN

The AT-G-Alert is designed for simple installation and maintenance. Design features include:

- Stylish compact unobtrusive design. Fits in standard 47mm deep flush double gang socket boxes.
- Flush mount ABS cover plate available in standard finishes: RAL9016 Gloss White Finish, Brushed Aluminium Finish and *Silver Mirror Finish - available to special order along with other bespoke finishes.*
- Surface mount version available in bespoke RAL9016 white gloss finish enclosure.
- Self-diagnostics.
- Simple field calibration. No need to remove the unit to calibrate.
- Unique plug in replaceable pre-calibrated sensor.
- Refrigerant specific sensor
- Adjustable delay to avoid false alarms
- Local alarm option, LED and siren (siren mutable)
- Enhanced connectivity by either volt free relay (2x) or on-board Modbus RTU interface
- The on-board Modbus RTU interface can provide real time information on refrigerant concentrations, status and settings. It also enables custom configuration to any application specific requirements using multiple Modbus registers.
- Fully compatible with the Aquinet central monitoring system where compliance to EN378 is required.

## APPLICATIONS

The AT-G-ALERT is ideal for refrigerant gas detection applications in most occupied spaces. Whether you are designing or managing a hotel, an apartment building, concert hall or public building, gas leaks and emissions are a concern. You have to ensure that your systems are safe, that adequate monitoring is in place, and that you are complying with regulations – While still keeping costs under control. AquiTron has a range of gas detection systems to help you meet all those needs The AT-G-ALERT.

All AT-G-ALERT products are:

- Designed and engineered to meet customers' specific needs
- Fully compliant with EC and international environmental regulations
- Flexible, easy to install and maintain

## TECHNICAL INFORMATION

<b>Detectable Gases</b>	R-410a, R-407c, R-404a, R-32
<b>Measuring Ranges</b>	10000ppm (2500, 5000ppm available to special order)
<b>Housing</b>	Flush mount, White ABS
<b>Dimensions</b>	<b>Body:</b> 109 (126 inc. tabs) x 57 x 46mm (WxHxD) <b>Cover:</b> 146 x 86 x 3mm (WxHxD), Standard double gang plate size <b>Surface Enclosure:</b> 140 x 98 x 58mm (WxHxD)
<b>Protection</b>	<b>Indoor:</b> IP40, NEMA 1
<b>Weight</b>	250g (with sensor and cover)
<b>Power Supply</b>	100-240 Vac, 50/60Hz, 4w max.
<b>Status LED</b>	Tri colour LED: Green, Amber, Red
<b>Audible Alarm</b>	80 DB at 30cm
<b>Alarm Delay</b>	0 – 15 minutes. Configurable; 0, 5, 10, 15 minutes
<b>Recommended Cable Sizes</b>	<b>Power:</b> 3-core, 14-20 AWG (2.0-0.5mm <sup>2</sup> ) <b>Relay:</b> 3-core, 18-20 AWG (1.0-0.5mm <sup>2</sup> ) <b>Modbus:</b> 2-core twisted pair shielded cable 18-24 AWG (1.0-0.2mm <sup>2</sup> )
<b>Modbus RTU</b>	<b>Connection:</b> RS-485 terminal block <b>Baud rate:</b> 9600 or 19200 Selectable (9600 default) <b>Start bits:</b> 1, Data bits: 8, <b>Parity:</b> none (default), odd/even (selectable) <b>Stop bits:</b> 1 (default) or 2 (selectable) <b>Retry time:</b> 500ms (min) between retries <b>End of message:</b> Silent 3.5 characters
<b>Environmental Range</b>	<b>Operating Temperature:</b> 0-50°C (32-120°F) <b>Storage Temperature:</b> -20-40°C (5-100°F) <b>Humidity:</b> 5-90% RH, non-condensing <b>Pressure:</b> 23.6-32.5 inch of Hg (800-1100hPa) <b>Elevation:</b> 2000m (0-6560 ft.) altitude



<b>Sensor Life</b>	2 year minimum life with recommended 6 month testing/re-calibration
<b>Relays</b>	2x SPDT, 1A at 30Vdc, 1A at 250Vac (resistive load)
<b>Trigger Values</b>	Low - 2000ppm, High - 8000ppm

## APPROVALS

### Electromagnetic compatibility (EMC)

**CE** CE, UL/CSA/IEC/EN 61010-1

## ORDERING INFORMATION

<b>Catalogue number</b>	AT-G-ALERT
-------------------------	------------

Please specify the following when ordering:

- Flush mount or surface mount
- Flush mount ABS fascia finish options - gloss white, brushed aluminium standard or brushed mirror silver to special order. **Bespoke finishes also available to special order.**
- Surface mount is available in gloss white only
- Refrigerant gas type, R410A, R407C, R404A, R32



Gloss White



Brushed Mirror



Brushed Aluminium

**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. Aquilar Limited makes no warranty as to the accuracy or completeness of the information, and disclaims any liability regarding its use. The only obligations of Aquilar Limited are those in the Aquilar Standard Terms and Conditions of Sale for this product, and in no case will Aquilar Limited be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use or misuse of the product. Specifications are subject to change without notice. In addition, Aquilar Limited reserves the right to make changes - without notification to Buyer - to processing or materials that do not affect compliance with any applicable specification.

**AquiTron** is a trademark of **AquiTron Limited**  
**Aquilar** is a trademark of **Aquilar Limited**