

AquiTron

AT-G-ALERT Refrigerant Sensor



DATA SHEET



AT-G-ALERT

Refrigerant Gas Sensor For Occupied Spaces



The all new AquiTron 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

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

Sensor Life	2 year minimum life with recommended 6 month testing/re-calibration
Relays	2x SPDT, 1A at 30Vdc, 1A at 250Vac (resistive load)
Trigger Values	Low - 2000ppm, High - 4000ppm

APPROVALS

Electromagnetic compatibility (EMC)



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

ORDERING INFORMATION

Catalogue number	AT-G-ALERT
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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

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