# Specification Guideline

**AT-G-DETECT Refrigerant/General Gases Alarm Systems**

Furnish a complete system consisting of stand-alone set point refrigerant gas detection alarm units and remote sensors as manufactured and supplied by Aquilar Ltd and known as the AquiTron™ AT-G-DETECT. The system is to detect leaks of all types of refrigerant gases as well as a wide range of toxic and explosive gases.

The positioning of the detection alarm units and its remote sensors shall be determined by the gas type.

* For gases lighter than air mount the sensor unit at high level (under the ceiling).
* For gases heavier than air (ie most refrigerants) mount the sensor unit at low level (200mm above the floor).
* The position of the sensor unit is to be where air movement is minimal and least affected by doors, open windows and extract fans.
* Optional sensor housings shall be available for external, explosive, decorative applications etc.

The AT-G-DETECT system shall be factory calibrated for the specific gas in use. The gas type for which the unit has been calibrated shall be clearly stated and visible on the outside of the enclosure.

Standard alarm settings are to be based on HSE guidelines for toxic gases at levels lower than 20% of the LEL (lower explosive level) for explosive gases. Customised calibrations shall be carried out by the manufacturer.

The AT-G-DETECT shall have LED indication, green – power, plus red to indicate the gas concentration above the threshold settings.

The AT-G-DETECT shall monitor for sensor failure or sensor disconnection and will activate an alarm signal.

Output relays shall be provided for remote connection to the BMS or auxiliary controls. The AT-G-DETECT shall provide 2 volt free contacts rated at 230v 10 amps.

A dedicated 3 amp 230Vac unswitched fused spur shall be provided for each AT-G-DETECT.

The system shall comply with the European Standard EN378 – Refrigerating Systems & Heat Pumps – Safety & Environmental Requirements, meet the criteria set out by the BRE’s Environmental Assessment Method (BREEAM) and suitable for use in complying with the EU F-Gas Regulation 842/2006.

Upon completion of the installation the AquiTron™ system shall be commissioned in strict accordance with the manufacturer's instructions.

**The system shall be supplied by Aquilar Ltd, Weights & Measures House, 20 Barttelot Road, Horsham, West Sussex. RH12 1DQ. Tel: 01403 216100 Email: info@aquilar.co.uk**