

# Refrigerant Gas Leak Detection

## AquiTron / Aquilar

Aquilar Limited are specialist suppliers of two brands of leak detection. Firstly the TraceTek water and fuel oil liquid systems and secondly the AquiTron range of refrigerant gas leak detection systems are used in many of today's modern buildings to monitor and minimise leaks on air conditioning systems and refrigeration plant.

### Refrigerant / Air Conditioning Gas Detection

Refrigerant gas leak detection has become a high priority for many companies in this environmentally sensitive age, coupled with responsibility concerning health and safety within buildings. The AquiTron systems have become critical for many of the air conditioned and refrigerated spaces to give building owners an early warning system to minimise losses of valuable gases.

### Why Refrigerant Gas Detection?

Refrigerant loss from air conditioning and refrigeration plant is not just expensive, it can be detrimental to health and safety and is environmentally unacceptable.

*A 15% refrigerant gas leak equates to a 100% increase in energy consumption to maintain the same room temperature*

As Electricity prices increase, ensuring you have an efficient fixed leak detection system in occupied and critical areas is vital. Building owners need to be compliant with the F-Gas regulations and BS EN378. System designers can benefit from installing a fixed system under the BREEAM scheme (Building Research Establishment's Environmental Assessment Method) which helps provide the best sustainable buildings. Many projects have already benefited from the installation of AquiTron systems, as it adds vital credits to the schemes total.

Systems are available to detect all the common refrigerant/air conditioning gases used today, including CFCs, HFCs, HCFCs such as R410A, R407c, R134A, R290, etc.

#### Technologies Used

There is wide range of sensor technologies available to choose from to detect a wide range of gases in a variety of applications. Four types are used to suit the application and gas:

Semiconductor, Electrochemical, Catalytic & Infrared

#### Applications

- Hotel bedrooms & apartments
- Offices
- Data centres, comms, server & equipment rooms
- Class rooms
- Hospitals
- Chiller plant rooms / HVAC corridors

Please refer to the Technical section of this Notebook for further details.

## TraceTek & AquiTron

### Water & Fuel Oil Leak Detection

TraceTek is part of the range of products manufactured by Tyco Thermal Controls (formally Raychem) providing a comprehensive range of digital and analogue leak detection technology that are simple, reliable and flexible. The digital control panel provides you with pinpoint accurate location of any leaks. The system can also detect multiple leaks and can be networked to 127 channels. No matter what your liquid leak detection need is, TraceTek products are available to suit your application.

#### Applications

##### Use TraceTek in...

- Data centre, server, comms & computer rooms
- HVAC plant rooms, service risers
- Lift pits & lift motor rooms
- Museums, libraries & archives
- Hospitals
- Sensitive areas, high value spaces

#### Many Liquid Sensors

- TT1000 for water detection, TT1100 for water detection on overhead pipes
- AT-PROBE for water detection for banded area, base of riser & below equipment
- TT5000 for fuel oils: petrol / gasoline, diesel, jet fuel & other fuels

Aquilar Ltd  
Weights & Measures House  
20 Barttelot Road Horsham  
West Sussex  
RH12 1DQ

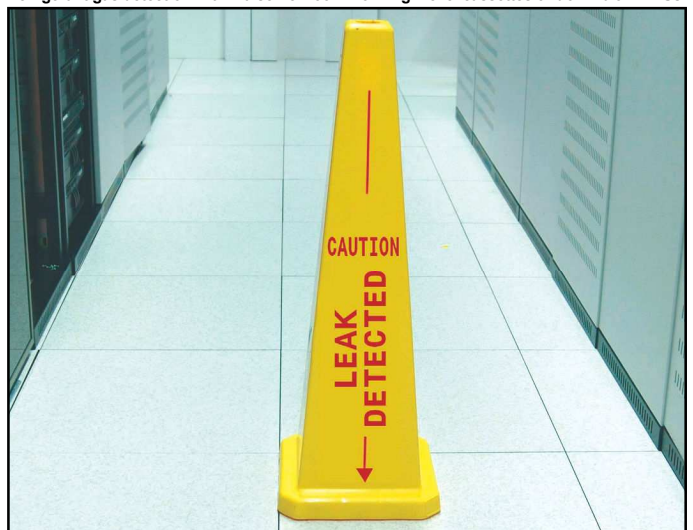
Tel : 01403 216 100  
Fax : 08707 940 320  
Email : [ajmn@aquilar.co.uk](mailto:ajmn@aquilar.co.uk)  
Website : [www.aquilar.co.uk](http://www.aquilar.co.uk)



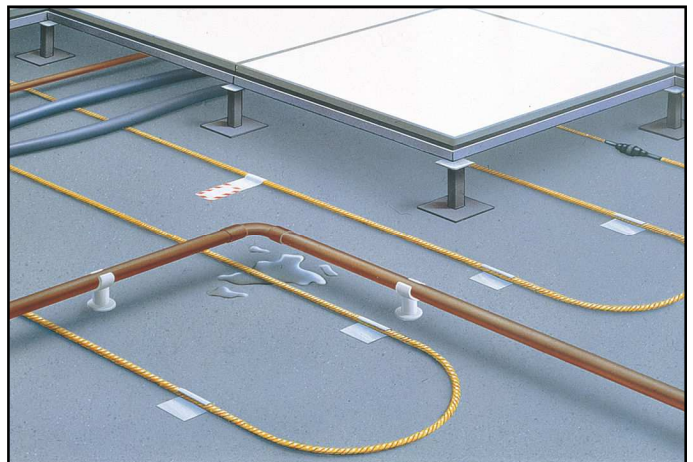
Apartment & hotel room refrigerant gas detection



Refrigerant gas detection within a server room from high level cassettes or down blow ACUs



Leak detected within a comms room floor



TraceTek TT1000 water sensing cable installed within the raised floor of a data centre

