

# **Specification Guideline**

**Hydrocarbon (Fuel/Oil) Leak Detection – Zonal Systems**

Furnish a complete system to include electronic Single or Multi zone alarm panel, modular TraceTek TT5000/TT5000-HUV/TT5000-HS sensing cable, AquiTron™ Optical fuel/oil sensing probes, auxiliary components and BMS interface as supplied by Aquilar and manufactured by TraceTek and AquiTron™.

**SENSING CABLE:** The fuel sensing cable shall detect the presence of diesel, gasoline, jet fuel and other hydrocarbons but shall not detect water. The fuel sensing cable shall consist of a four wire core, conductive polymeric jacket, and a fluoropolymer overbraid. The core shall consist of two sensing wires and two insulated wires. The sensing wires shall be jacketed with a conductive fluoropolymer. The cable shall be constructed with no metal parts exposed to the environment. The sensing cable system shall be capable of accommodating any number of branches using TraceTek branching connectors. Jumper cable shall be available to interconnect sensing cables or to facilitate remote mounting of the electronic panel. Use of interconnect wiring to remotely mount the electronic panel shall not reduce the maximum amount of sensing cable that the electronic panel can monitor. The sensing cable shall be TraceTek TT5000/TT5000-HUV/TT5000-HS as supplied by Aquilar Ltd T: 01403 216100

**OPTICAL HYDROCARBON SENSING PROBE:** The AquiTron™ AT-OPSEN Optical liquid detection sensor shall provide instant detection of fuel oils and any other none aggressive liquids. The AT-OPSEN shall be powered by a 12Vdc from a PSU-1 power supply unit. The orange epoxy powder coated, low profile guard plate will ensure that the probe will not fall over and bright colour give high visibility. LED’s for power (green) and (red) leak alarm shall be provided on the top of the IP67 enclosure. AT-OPSEN interlink cable shall be used to connect multiple sensor to one alarm system.

**ZONAL ALARM PANEL:** The alarm module shall be capable of monitoring systems up to 100 metres in length of sensing cable per zone and or 5 Optical Probes per zone. The alarm panel shall continuously monitor the system for water presence or loss of continuity. Volt-free contacts for leak shall be provided for each zone. Continuity shall be provided as a summary relay for BMS and remote interface. The alarm module shall be provided with a 3A, 240Vac non switched supply.

The module shall be the AT-SZA for the single zone and AT-MZA for the multi zone as manufactured by AquiTron™.

**INSTALLATION:** The installation shall not take place until all construction work to the area of installation is completed, all debris and construction by products have been taken away and the area cleaned. The sensing cable system and alarm module shall be of the type that is simple to install, commission and maintain Without the need for special tools, e.g., oscilloscopes, sine wave generators, etc. Sensing cable shall be removed should it be necessary to conduct any local building modifications and replaced when completed.

Upon completion of the installation the TraceTek / AquiTron™ system shall be commissioned in strict accordance to 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**