

### General Information

Please read these instructions carefully and keep them in a safe place for future reference. These instructions must be followed to ensure proper operation.

The OPSEN optical sensor has been specifically designed for use with TraceTek and AquiTron™ leak detection systems.

The OPSEN is designed for use in ordinary areas with temperatures of 0°C to 50°C (32°F to 122°F).

### Zones / Regions

Probes with terminal strips and built in resistors (weighted lengths) equal to 8 metres (25 feet) for the first sensor and 16 metres (50 feet) for each subsequent sensor when used on the TraceTek TTDM-PLUS or TTSIM-1/1A alarm & locator panels.

If sensors are used alone on a circuit, without sensing cable, the 'zones' setting within 'units' can be used on the panels.

### Power Supply

Each OPSEN requires a 12Vdc power supply. Power is available from a separate power supply unit: AT-PSU-1 for 1 to 10 sensors.

The 12Vdc should be connected as detailed below, care should be taken when connecting the power as the sensor is polarity sensitive.

The Bulk OPSEN cable is colour coded for connection into the TraceTek and AquiTron™ panels: white 12Vdc (+) and blue 0V (-) should be used for the power cables.

### Power indication

The sensor unit is provided with a GREEN LED to indicate power present.

### Alarm indication

In the event of a leak being detected the units RED LED will illuminate.

Indication will also be displayed on the following leak detection panels:

AT-SZA, single zone indication.

AT-DIM, single zone indication.

AT-MZA, individual zone indication.

TTDM-PLUS, distance or zone number/region/area name.

TTSIM-1/1A, via the master panel or BMS a distance or zone number/region/area name is available.

### Detection time

The Optical sensor head will detect the presence of a liquid within seconds of it making contact. The alarm activation on the OPSEN (Red LED) will be immediate, however, alarm indication on the leak detection control panel will depend on the model selected.

### Application Liquids

The OPSEN has been designed for use with hydrocarbon based liquids such as fuels and oils. The sensor will also detect other non aggressive liquids.

The OPSEN optical sensor head will also detect water and many other chemicals.

For further liquids please contact your distributor.

### Maximum number of Sensors

TTDM-PLUS and TTSIM panels - 100

AT-SZA, AT-DIM and TTSIM-1A - 10

AT-MZA - 10 per channel/zone

### Temperature

**Environment:** Storage: -18°C to 60°C (0°F to 140°F)  
Operating: 0°C to 50°C (32°F to 122°F)

**Liquid:** Operating: 0°C to 50°C (32°F to 122°F)

**Enclosure:** IP67

### Tools required

Phillips (cross-head) screwdriver  
Small flat-head screwdriver

### Storage

Keep the module in a dry place prior to installation to avoid possible damage to internal components.

### Additional items

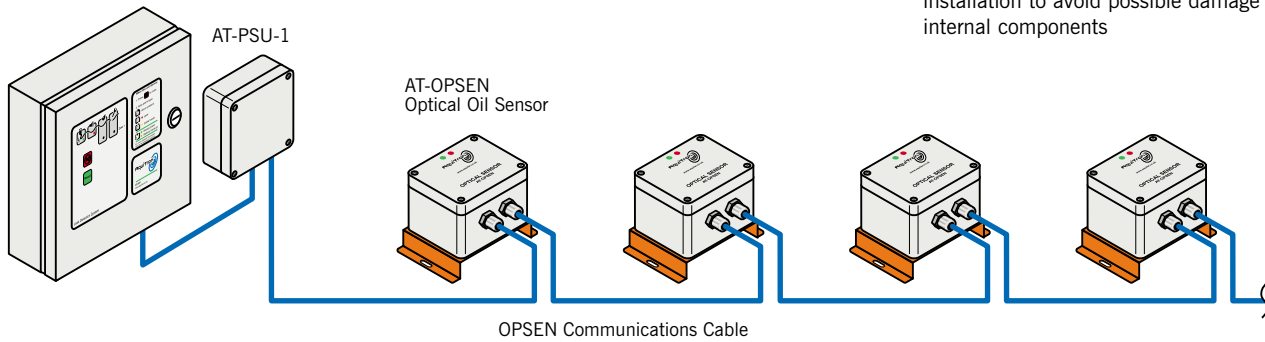
AT-PSU - 1 OPSEN Power Supply Unit (max 10 sensors)

AT-OPSEN-CBL Bulk OPSEN Cable (50 metre reel)

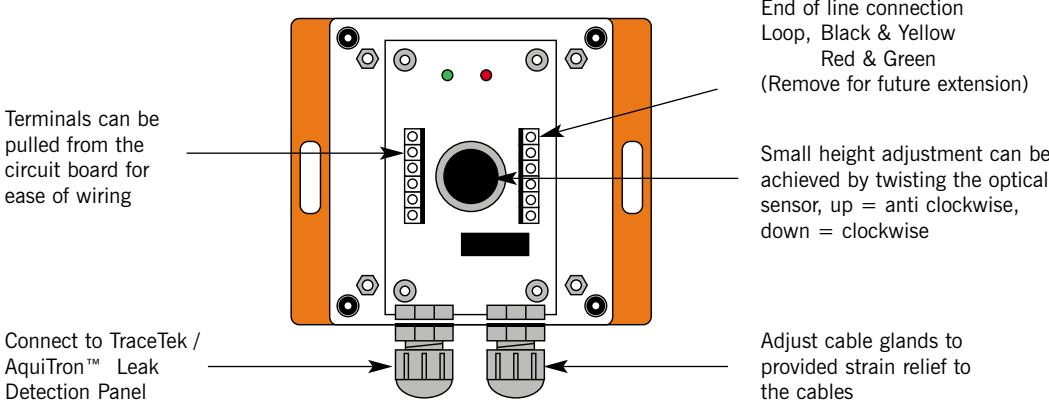


TraceTek or AquiTron™  
Leak Detection Alarm Panel

**Storage**  
Keep the module in a dry place prior to installation to avoid possible damage to internal components



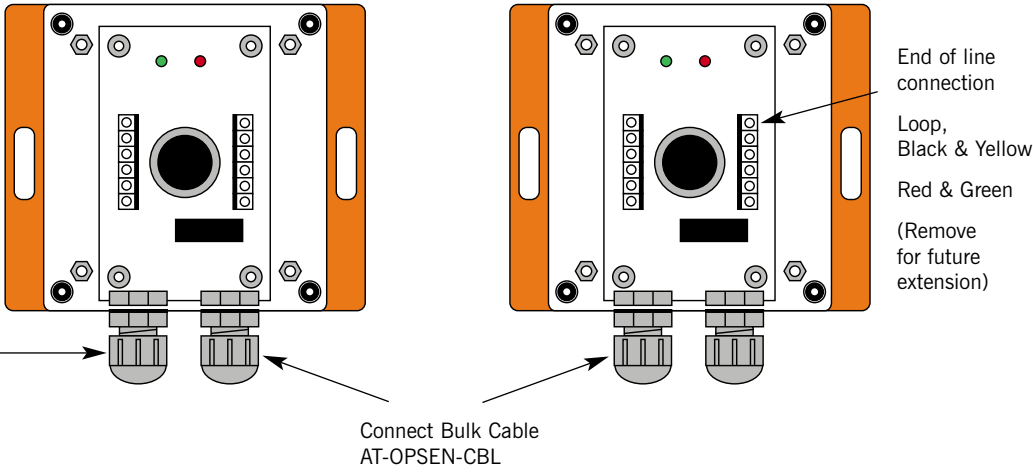
**Single sensor**



**Multiple sensors**

**Wiring/connection Notes**

- Match colour coding in sequence through the chain of probes:
- Black - Black
  - Yellow - Yellow
  - Red - Red
  - Green - Green
  - 12Vdc - 12Vdc (White)
  - 0V - 0V (Blue)



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**Aquilar Limited**  
Dial Post Court, Horsham Road,  
Rusper, West Sussex RH12 4QX. UK  
Tel: + 44 (0) 1293 871874  
Fax: +44 (0) 1293 871717

E-mail: [info@aquilar.co.uk](mailto:info@aquilar.co.uk)  
[www.aquilar.co.uk](http://www.aquilar.co.uk)

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Water, Fuel and Chemical Leak Detection