FG-A-OD

Alarm Unit for Hydrocarbon Leak Detection

Installation Notice

TTK
LIQUID LEAK DETECTION SYSTEMS
OIL & GAS DIVISION

CE

Installation Notice FG-A-OD

1 FG-A-OD Alarm Unit Description

- The FG-A-OD Alarm Unit is designed to be used with the FG-OD hydrocarbon range of sense cable or point detector, to provide quick detection of liquid (non-conductive hydrocarbon liquids and solvents). The appearance of a fault (leak or cable-break) is detected as follows:
  - An audible alarm is triggered;
  - A light-emitting diode comes on: red (for leak) or yellow (for cable-break);
  - A dry contact is activated to transmit the alarm information to remote monitoring equipment.
- To stop the sound alarm, press the central button. The diode and the dry contact remain activated for as long as the fault is present.
- When the fault disappears, the diode switches off and the relay returns to its original normal status.
- The panel is designed to connect only one length of sensor cable; if more than one sensor is installed, the panel will be locked and the alarm will be permanently active.

2 Panel Mounting

- Available in Wall-Mounted Version:

  Two of the three cable glands are placed on the FG-A-OD Alarm Unit; the last gland can be screwed in the position of plug PG7.

  Use the four fixing holes in the lower part of the unit box. Release the upper part of the box in the lower part, which is maintained by four screws. These two parts can be easily dismounted after mural fixing. Remove the upper part with the PCB (printed circuit board) carefully.

  FG-A-OD Alarm Unit, wall mounted version, contains:
  - 1 FG-A-OD Alarm Unit
  - 3 PG cable glands: 2 PG7 + 1 PG9
  - 1 plug PG7
  - Installation Notice
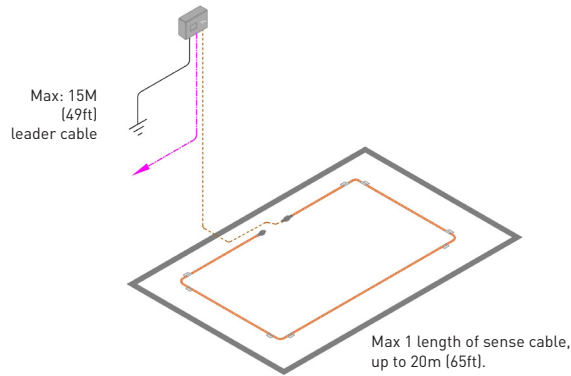
3 Connection and Adjustment

1. Power Connection	There are three possibilities for power connection: 12 to 24 V AC / 15 to 30 V DC / 100-240 V AC 50/60 Hz. Maximum capacity: 10 W The maximum section of the cable is 14 AWG multistrand (flexible cable). There is no requirement to respect polarity in 12/24 V. Use PG9 cable gland for the 230-V cable.
2. Relays Connection	Maximum voltage commutated: 125 V AC / 220 V DC Maximum power commutated: 60 W (30 V x 2 A) The relays are free of potential. The maximum section of the cables is 18 AWG. **- Dry Contact for Leak:** The leak contact transfers information regarding a leak to a PC (or controller), allowing automated control of the equipment. **- Dry Contact for Cable Break:** A specific contact will be activated when a cable break occurs. A power outage will also activate the contact. Relays: NO-COM-NC

4 Connection of Sensors

■ Connecting the FG-OD Sense Cable:

The FG-OD sense cable will be connected at the extremity of the FG-CLOD.

To connect the FG-CLOD to the FG-A-OD, please refer to the next section 5.

Max: 15M (49ft) leader cable

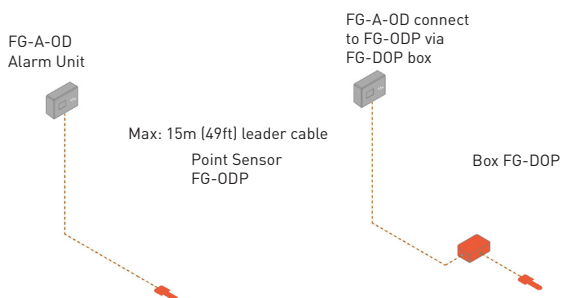Max 1 length of sense cable, up to 20m (65ft).

■ Connection of FG-ODP Point Detector:

The FG-ODP point detector/probe can be connected to the FG-A-OD in two different ways (refer to next Section 5 for wiring):

- Direct connection: FG-ODP lead cable (4 wires) into FG-A-OD;
- Via FG-DOP box: FG-ODP leader cable (4 wires) to FG-DOP box, and 'TTK 8771' bus leader cable (3 wires: B, C, D) from FG-DOP box to FG-A-OD.

NB: The second method allows an extra length of leader cable, if required.

FG-A-OD Alarm Unit

FG-A-OD connect to FG-ODP via FG-DOP box

Max: 15m (49ft) leader cable
Point Sensor FG-ODP

Box FG-DOP

5 Connecting the Motherboard

Warning :

- The green terminal is only used for the connection of an FG-ODP point sensor.
- Only the white-black-red terminals are used for the connection of an FG-OD sensing cable. **DO NOT USE THE GREEN TERMINAL.**
- The shield of the leader cable must be connected with the earth terminal of the power supply connector. **DO NOT CONNECT TO THE GREEN TERMINAL.**

Connect the FG-CLC leader cable, refer to "FG-SYS installation guide" chapter 1, section 3.3 "Connection of FG-CLC leader cable".	
Power supply 100-240 VAC 50/60Hz	N: Neutral P: Live ⏚: Earth
Power supply 12-24 V AC, 15-30 V DC	Polarity not required
Cable Break / Power Failure Relay	NO-COM-NC
Leak Relay	NO-COM-NC
FG-CLOD Leader Cable (or FG-ODP Connection Cable)	A: Green wire (for FG-ODP point sensor only) B: White wire C: Black wire D: Red wire

Caution: All connector blocks must be connected with the FG-A-OD Alarm Unit supply switched off.