LIQUID LEAK DETECTION SYSTEMS

FG-A

Alarm Unit

Installation Notice

Installation Notice FG-A

1 FG-A Alarm Unit Description

- The FG-A Alarm Unit is designed for use with TTK analog sense cables: FG-ECX, FG-ACX, FG-ECS and FG-ACS, it detects leaks of liquids. The appearance of a fault (leak or cable-break) is detected as follows:
  - A sound alarm is triggered;
  - A light-emitting diode comes on;
  - 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.

2 Panel Mounting

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

- Wall-Mounted Version:

Two of the three cable glands are placed on the FG-A 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. The diode and the dry contact remain activated for as long as the fault is present. These two parts can be easily dismounted after mural fixing. Remove the upper part with the PCB (printed circuit board) carefully.

FG-A Alarm Unit, wall-mounted version, contains:

- 1 FG-A Alarm Unit
- 3 PG Cable Glands: 2 PG7 + 1 PG9
- 1 Plug PG7
- Installation Notice

3 Connection

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. For power, relays and Modbus connection, the maximum cable section cable is of 12 AWG. There is no requirement to respect the polarity in 12/24 V. Use PG9 cable gland for the 230-V cable.
2. Relays Connection	Maximum switching voltage: 125 V AC / 220 V DC Maximum switching capacity: 60 W (30 V x 2 A) Maximum switched intensity: 2A Minimum working load: 5 V DC - 1 mA The relays are free of potential. **- 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 Connecting the Sense Cable

Connecting Sense Cables FG-ECS or FG-ACS:

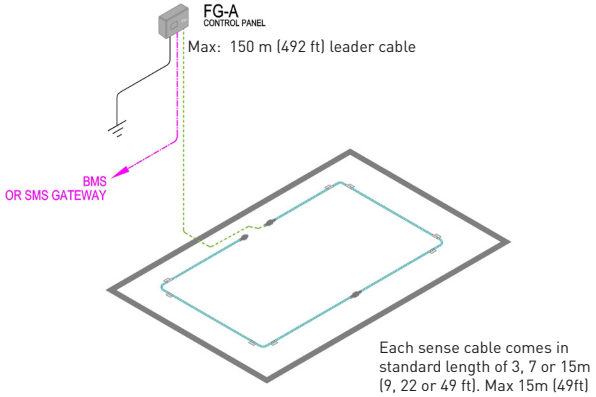
A junction with a length of 3.5 meters (11.5 ft) of Belden jumper cable on each length of FG-ECS and FG-ACS, will allow simple connection to the FG-A alarm unit.

Connecting Sense Cables FG-ECS or FG-ACS:

Connect the FG-CLC leader cable, refer to "FG-SYS installation guide" chapter 1, section 3.3 "Connection of FG-CLC leader cable".

The FG-CLC leader cable, connected to the FG-A alarm unit with a female connector, at its extremity. The beginning of the sense cable thus corresponds with a male connector at its far end.

Connect the first sense cable to the leader cable coming from the FG-A alarm unit.



Each sense cable comes in standard length of 3, 7 or 15m (9, 22 or 49 ft). Max 15m (49ft) sense cable in total.

5 Connecting the Motherboard

Power supply: 100-240 V AC 50/60 Hz	N: Neutral P: Live ⏚: Earth
Power supply:12-24 V AC 15-30 V DC	Polarity not required
Cable Break / Power Relay	NO-COM-NC
Leak Relay	NO-COM-NC
FG-CLC Leader Cable	A: Green B: White C: Black D: Red

Sensitivity

The sensitivity of the unit is adjustable via the potentiometer on the PCB.

- Clockwise : more sensitive
- Counter-clockwise : less sensitive

6 Start-Up Guide

Normal Operation	- Switch on the FG-A alarm unit - A sound alarm is triggered, 3 diodes come on. This is the general test of the circuit board. - The alarm turns off, the green diode remains on. - The alarm unit is operating.
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Simulation of Leak	- Place water directly on the sense cable. - The red diode comes on and the sound alarm leak contact are both activated. - Press the button to switch off the sound alarm. - Soak up the water with a dry duster. - The red diode goes off and the dry contact returns to its normal position.
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Simulation of Cable Break	- Disconnect the sense cable from the FG-A alarm unit, block A, B, C and D. - The yellow diode comes on and the sound alarm leak contact are both activated. - Press the button to switch off the sound alarm. - Connect the cable to the FG-A alarm unit. - The yellow diode goes off and the dry contact returns to its normal position.

7 After Installation: ABC Steps

A. Produce a clear and precise installation drawing and place it close to the FG-A Alarm Unit.

B. Make sure that the following documents are available to the Client:
- FG-A alarm unit data sheet
- Drawing of the installation
- Installation Notice

C. Inform the Client that it is advisable to perform maintenance operation twice per year on the system.

Company _____

Operator name _____

Date____ /____ /____