Liquids leak detection systems

FG-A Alarm Unit
Installation Instructions

FG-A Alarm Unit Installation

1. Fixing the FG-A Alarm Unit

There are 2 versions of FG-A Alarm Unit: Wall mounted and Rack mounted.

Wall Mounted Version:

Two of the three cable glands are placed on the FG-A Alarm Unit, the last one can be screwed in the place of plug PG7.

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

Rack Mounted Version in a bay 19 '' (H = 2U):

Use the two fixing holes on the front face. The connector blocks are on the printed circuit board at back side.

FG-A Wall Mounted

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

- 1 FG-A Alarm Unit: 230-240 VAC-12 VAC - 24 VAC/DC
- 3 PG cable glands: 2 PG7 + 1 PG9
- 1 plug PG7
- 1 Installation Instructions

2. Connection and Adjustment

2.1 Power Connection	**3 possibilities for power connection:** 12 to 24 VAC / 15 to 30 VDC / 230-240 VAC Power supply: 60 mA max. The maximum section of the cable is of 14 AWG for 230-240 VAC, and 18 AWG for 12 VAC or 24 VAC/DC. It is not necessary to respect the polarity in 12/24 V. Use PG9 cable gland for the cable 230 V.
2.2 Connection of the Dry Relays	Simple relay: COM-NO-NC Max. commutated Voltage: 125 VAC / 60 VDC Max. commutated Power: 62,5 / 30 W Max. commutated Capacity: 1A Nominal load: 0,5 A with 125 VAC 1 A with 24 VDC Working load min.: 5 VDC - 1 mA The dry relays are free of potential. The maximum section of the cables is of 18 AWG. **- Dry Contact for Leak:** The leak contact transfers the information of leak to a PC (or supervisor), allowing automated equipment control. **- Dry Contact for Cable Break:** A specific contact is activated in case of cable break. A power supply failure also activates the contact.
2.3. Adjustment of the Detection Sensitivity	You can adjust the detection sensitivity, using the potentiometer (P1). The adjustment factory corresponds to the maximum sensitivity (1 turn).

FG-A Alarm Unit Description

The FG-A Alarm Unit is designed to be used with TTK analogue sense cables: FG-ECX, FG-ACX, FG-ECS, FG-ACS or FG-HC2, it detects liquids leak. The appearance of a fault (leak, cable break) is detected in the following way:

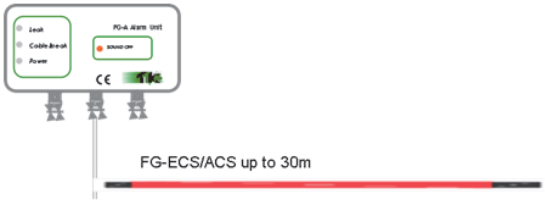
- An audible alarm is triggered;
- A luminous diode turns on;
- A dry contact is activated to transfer the alarm information to remote monitoring equipments.

To stop the audible alarm, press the “reset” button. The diode and the dry contact remain activated as long as the fault is present. When the fault disappears, the diode switched off and the relay returns to its original normal status.

Sense Cables Connection

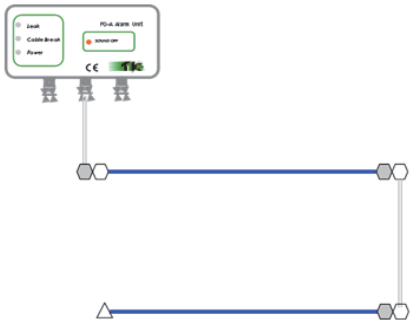
1. Connection of Sense Cables FG-ECS or FG-ACS

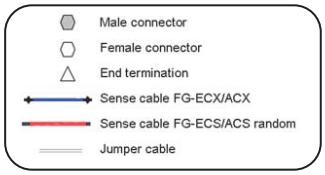
A junction with a length of 3,5 metres of Belden jumper cable on each length of FG-ECS and FG-ACS, allows a simple connection to the FG-A alarm unit.



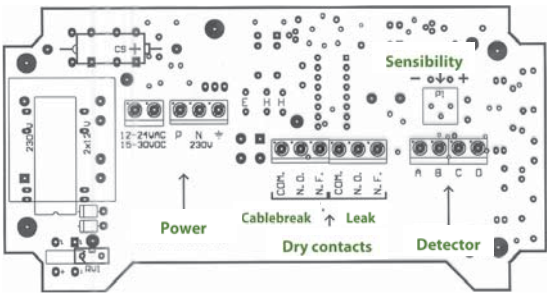
2. Connection of Sense Cables FG-ECX, FG-ACX or FG-HC2

To connect the FG-CLX leader cable, refer “FG-SYS installation guide” chapiter 1, sector 3.3 “Connection of FG-CLC leader cable”.
The FG-CLX leader cable, connected to the FG-A alarm unit with a female connector, at its extremity. The beginning of the sense cable thus corresponds at its extremity with a male connector.
Connect the first sense cable to the leader cable, coming from the FG-A alarm unit.





Wiring FG-ECX on a FG-A Circuit Board



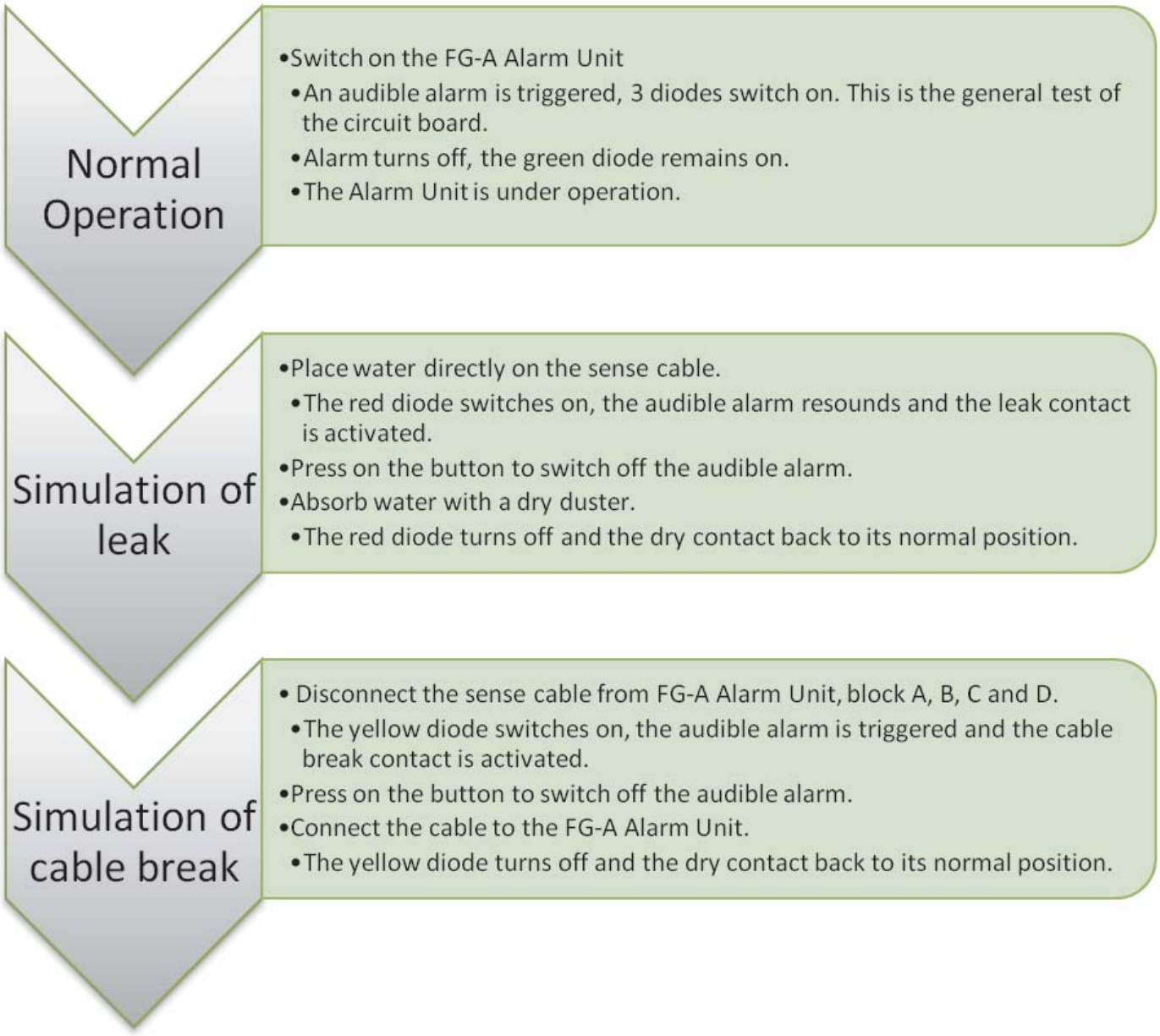
To connect the various cables (leader cable, power supply and relays) at the corresponding connector block.	
Power supply 230-240 V ca	N : Neutral P : Live ⏚: Earth
Power supply 12 V or 24 V ca/cc:	polarity not needed
Power Fault or Cable Break Relay	R1 : COM R2 : NO R3 : NC
Leak Relay	R4: COM R5 : NO R6 : NC
FG-CLC Leader Cable	A : Green wire B : White wire C : Black wire D : Red wire
Potentiometer (in blue colour) P1 for adjusting sensitivity of detection	

Material recommended (*) for a complete installation with FG-A Alarm Unit:

FG-A	Wall or Rack Mounted Alarm Unit
FG-CLX	Leader Cable of 3,5 m.
FG-ECS3/7/15	Water Sense Cable in Length of3, 7 or 15m
or FG-ACS3/7/15	Acids Sense Cable in Length of 3/7 or 15m
or FG-ECX3/7/15	Water Sense Cable in 3/7/15m
or FG-ACX3/7/15	Acids Sense Cable in 3/7/15m
or FG-HC2	Hydrocarbon Sense Cable in length of 2 m
FG-TMX	Modular End Termination
CFC100	Hold-down Clips and Adhesive (Set of 100)
ES40	Signal Tags (Set of 40)

(*) This list of material is given as an indication only. A particular study will be necessary for each installation. The material above is not included with FG-ALS Alarm Location Unit.

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



ABC steps:

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

B. Make sure that the following documents are at the disposition of the Customer:

- FG-A Alarm Unit data sheet
- Drawing of the installation
- Installation Instructions

C. Inform the Customer, it is recommended to take out maintenance operation twice per annum on the system.

Company _____

Operator name _____

Date__ /__ /__