FG-A
Alarm Unit

Installation Instructions

Installation Instructions FG-A

1 FG-A Alarm Unit Description

- The FG-A Alarm Unit is designed to be used with TTK analog sense cables: FG-ECX, FG-ACX, FG-ECS and FG-ACS, 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 central 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.

2 Panel Mounting

Caution: All connections of the connector blocks must be done with 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 one can be screwed in the place of plug PG7.

  Use the four 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).

  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	Three possibilities for power connection: 12-24VAC ;15-30VDC or 100-240VAC 50/60Hz. The maximum section of the cable is of 14 AWG for 100-240VAC, and 18 AWG for 12-24VAC and 15-30VDC. It is not necessary to respect the polarity in 12/24 V. Use PG9 cable gland for the cable 230 V.
2. Connection of the Relays	Simple relay: COM-NO-NC Max. Switching Voltage: 125VAC / 220VDC Max. Switching Capacity: 60W (30V x 2A) Max. Switched Intensity: 2A Working load min.: 5VDC - 1mA The relays are free of potential. The maximum section of the cables is of 14 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.

4 Sense Cables Connection

■ 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.
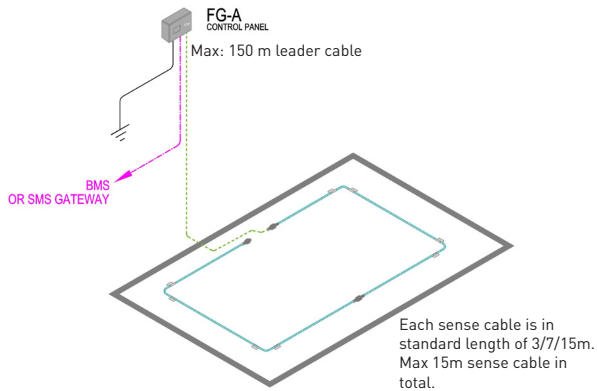

Max: 150m leader cable

Max: 15m FG-ECS/FG-ACS sense cable

■ Connection of Sense Cables FG-ECX or FG-ACX:

To connect the FG-CLC leader cable, refer "FG-SYS installation guide" chapter 1, sector 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 at its extremity with a male connector.

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

FG-A CONTROL PANEL
Max: 150 m leader cable
BMS OR SMS GATEWAY

Each sense cable is in standard length of 3/7/15m. Max 15m sense cable in total.

Sensitivity

- The sensitivity of the unit is adjustable via the potentiometer on the PCB.
  - Clockwise : more sensitive
  - Counter-clockwise : less sensitive

6 Commissioning Guide

Normal Operation	- Switch on the FG-A alarm unit - An audible alarm is traiggered, 3 diodes switch on. This is the general test of the circuit board. - Alarm turns off, the green diode remains on. - The arlarm unit is under operation.
Simulation of Leak	- Place water directly on the sense cable. - The red diode switches on, the audible alarm resounds and the leak contact is activated. - Press on the button to switch off the audible alarm. - Absorb water with a dry duster. - The red diode turns off and the dry contact back to its normal postion.
Simulation of Cable Break	- Disconnect the sense cable from FG-A alarm unit, block A, B, C and D. - The yellow diode switches on, the audible alarm is triggered and the cable break contact is activated. - Press on the button to switch off the audible alarm. - Connect the cable to the FG-A alarm unit. - The yellow diode turns off and the dry contact back to its normal position.

5 Motherboard Connection

Power supply: 100-240VAC 50/60Hz	N : Neutral P : Live ⏚ : Earth
Power supply:12-24VAC 15-30VDC	Polarity unnecessary
Cable Break Relay and/or Power Relay	R1 : COM R2 : NO R3 : NC
Leak Relay	R4: COM R5 : NO R6 : NC
FG-CLC Leader Cable	A : Green B : White C : Black D : Red

7 After Installation: 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_____ /_____ /_____**

- **TTK Headquarters** / 19, rue du Général Foy / 75008 Paris / France / T : +33.1.56.76.90.10 / F : +33.1.55.90.62.15 / **www.ttk.fr** / **ventes@ttk.fr**
- **TTK UK Ltd.** / 3 Luke Street / London EC2A 4PX / United Kingdom / T : +44 207 729 6002 / F : +44 207 729 6003 / **www.ttkuk.com** / **sales@ttkuk.com**
- **TTK Pte Ltd.** / #09-05, Shenton House, 3 Shenton Way / Singapore 068805 / T: +65.6220.2068 / M: +65.9271.6191 / F: +65-6220.2026 / **www.ttk.sg** / **sales@ttk.sg**
- **TTK Asia Ltd.** / 2107-2108 Kai Tak Commercial Building / 317 Des Voeux Road Central / Hongkong / T: +852.2858.7128 / F: +852.2858.8428 / **www.ttkasia.com** / **info@ttkasia.com**
- **TTK Middle East FZCO** / Building 6EA, Office 510 PO Box 54925 / Dubai Airport Free Zone / UAE / T: +971 4 70 17 553 / M: +971 50 259 66 29 / **www.ttkuk.com** / **cgalmiche@ttk.fr**
- **TTK Deutschland GmbH** / Berner Strasse 34 / 60437 Frankfurt / Deutschland / T : +49(0)69-95005630 / F : +49(0)69-95005640 / **www.ttk-gmbh.de** / **vertrieb@ttk-gmbh.de**
- **TTK North America Inc** / 1730 St Laurent Boulevard Suite 800 / Ottawa, ON, K1G 5L1 / Canada / T : +1 613 566 5968 / **www.ttkcanada.com** / **info@ttkcanada.com**