# FG-ACP

## Addressable Acids Point Sensor

### Product Datasheet

► Compatible with Digital Systems
► Detects and Locates Leaks
► IP67 Protection Marking

## Description

The FG-ACP is a digital point sensor for acids / corrosive chemical liquids and water leak detection. It is designed to be used with TTK digital units FG-SYS, FG-NET or FG-BBOX to give instant detection of liquid leaks.
In the event of liquid leak or cable break on the FG-ACP, the connected digital unit will respond as follows:
■ An audible alarm is triggered and a relay is activated.
■ The location of the leak (address of the FG-ACP) and details of the fault (the type of fault: leak or cable break) are displayed on the screen.
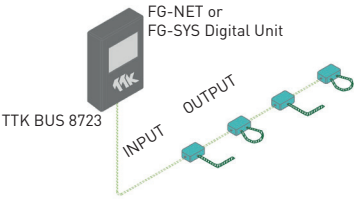■ Event report is sent to the BMS via MODBUS /JBUS protocol.

## Key Advantages

■ Available in three models: sense cable in U-shape, in L-shape and in Customized Version to suit different environments.
■ The digital communication is made with a length of TTK bus 8723 connected to various FG-ACP and the digital unit.
■ PG7 glands on the box sides make jumper cabling quick and easy.
■ The LED on the front face of the box indicates the box's status in real time:
  ■ Blinking green: normal, no alarm.
  ■ Blinking red: leak detected on the box.
  ■ No LED light: cablebreak detected on the box or loss of communication.

■ The FG-ACP detects and locates rapidly a liquid leak that comes in contact with it.
■ The FG-ACP detects any break or cut to the cable.
■ The FG-ACP ensures permanent protection in areas at risk of acid and water leakage.
■ A simple bi-annual test is all that is required.
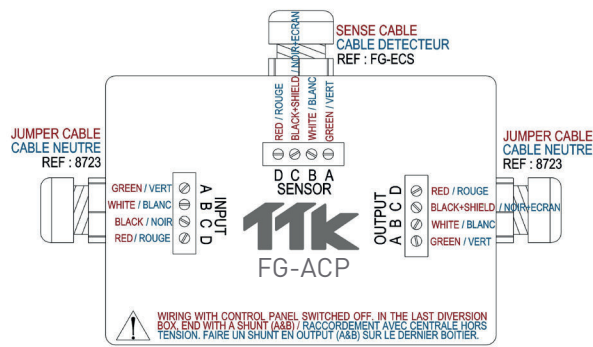
## Technical Data

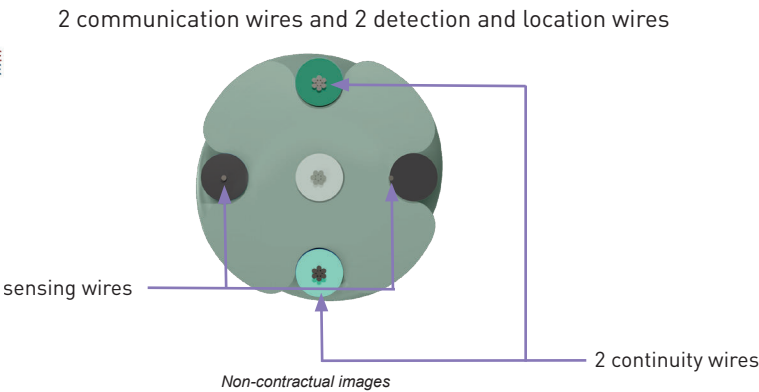| | |
|---|---|
| Compatibility | Digital units: FG-SYS; FG-NET; FG-BBOX |
| Reusability | Reusable, as long as the cable hasn't been damaged by prolonged immersion in liquid |
| Drying Time for Cable After Leak | Less than 10 seconds |
| Sense Cable Material & Nominal Diameter | PVDF, 0.3 in (± 0.02 in) (7.5 mm (± 0.5 mm) |
| Sensor Wires Material & Diameter | PVDF, 0.05 in (1.2 mm) |
| Core Material | PVDF |
| Minimum Bend Radius | 0.79 in (20 mm) |
| Sense Cable Color | Green and light gray |
| Operating Temperature | 5°F à 131°F (-15°C to 55°C) |
| Ingress Protection | IP 67 |
| Enclosure Type | ABS Polylac 707 (a natural ABS), UL94HB |
| Dimensions (W,H,D) | 4.13''W x 2.95''H x 2.17''D (105mmW x 75mmH x 55mmD) |

# Connection Schematic

- The two models: sense cable in U-shape and L-shape can be mixed in one circuit. FG-ACP can also be installed in the same circuit with digital water / acid sense cables.
- Maximum: 40 FG-ACP (40 addresses) connected to one circuit of the digital unit.
- In the schematic, INPUT corresponds to the TTK BUS 8723 cable coming from the Digital Unit; OUTPUT corresponds to the TTK BUS 8723 cable leaving towards the following FG-ACP.
- In the last FG-ACP, a shunt in OUTPUT in the circuit board must be done.

FG-NET or FG-SYS Digital Unit

TTK BUS 8723

INPUT   OUTPUT

# Product Information

SENSE CABLE
CABLE DETECTEUR
REF : FG-ECS

RED / ROUGE
BLACK+SHIELD / NOIR+ECRAN
WHITE / BLANC
GREEN / VERT

D C B A
SENSOR

JUMPER CABLE
CABLE NEUTRE
REF : 8723

GREEN / VERT
WHITE / BLANC
BLACK / NOIR
RED / ROUGE

INPUT
A B C D

**ttk**
FG-ACP

OUTPUT
A B C D

JUMPER CABLE
CABLE NEUTRE
REF : 8723

RED / ROUGE
BLACK+SHIELD
WHITE / BLANC
GREEN / VERT

NOIR+ECRAN

WIRING WITH CONTROL PANEL SWITCHED OFF. IN THE LAST DIVERSION BOX, END WITH A SHUNT (A&B) / RACCORDEMENT AVEC CENTRALE HORS TENSION. FAIRE UN SHUNT EN OUTPUT (A&B) SUR LE DERNIER BOITIER.

## FG-ACS Sense Cable Cutting View

2 communication wires and 2 detection and location wires

sensing wires

2 continuity wires

*Non-contractual images*

# Product Diagram

FG-ACP in U-shape

FG-ACP in L-shape

FG-ACP Customized Version

Attention: Sense cable is to be ordered sepearted. The sensor length and jumper length are to be precised when ordering.

# Identification Codes

| FG-ACP-U | Addressable Point Sensor in U-shape for Acids Detection |
|---|---|
| FG-ACP-L | Addressable Point Sensor in U-shape for Acids Detection |
| FG-ACP Customized Version | Including 2 Following Elements:<br>• FG-ACP: Enclosure<br>• FG-ACS Sense Cable: at a Specified Length |

# Certification

CE

FG-ACS sense cable is compliant to NFPA 262 (known also as UL910). NFPA: National Fire Protection Association
All TTK sense cables are designed as a part of the leak detection system and were used for the approval certification for TTK monitoring panels.
- **FG-NET and FG-SYS are UL Listed.**
- **FG-NET system is certified FM7745.**