FG-ACS
Acid Sense Cable

TTK
LIQUID LEAK DETECTION SYSTEMS
CHEMICAL DIVISION

Product Datasheet

► Compatible with Locating Systems
► Detects Water, Acid and Corosive Chemical Liquids
► Pre-connected in Standard Lengths
► Dust-proof Feature

Description

The TTK sense cable FG-ACS detects the presence of water, acid and corrosive chemical liquids at any point along its length. The FG-ACS sense cable connects to TTK's locating units (FG-NET, FG-SYS, FG-ALS8 & FG-ALS4) or non-locating units (FG-A), to respond immediately in the event of any leaks of acid and corrosive chemical liquids.

Features & Benefits

A RELIABLE SENSE CABLE
The FG-ACS sense cable performs the following functions:
- Rapidly detects the leak of water, acid and corrosive chemical liquids along the length of the cable.
- Detects leaks the nearest metre when connected to the Locating Alarm Unit: FG-NET, FG-SYS, FG-ALS8 or FG-ALS4.
- Detects any break or cut to the cable.
- Non-absorbant design can be reset in seconds after removal of the leak.

A MODULAR SYSTEM
The FG-ACS cable ensures permanent protection in areas at risk. FG-ACS is available in standard and pre-finished lengths of 3, 7 or 15 metres. The sense cable is installed to provide the best possible protection in order to cover risks and limit the financial consequences of an undetected acid leak.

EASY INSTALLATION
A spliced junction with a length of 3.5 metres of TTK 8723 bus jumper cable and an end termination at each length of FG-ACS sense cable give immediate connection to the unit or to the sector diversion box. Special fixing clips are used to fasten the sense cables in the chosen areas. A set of neutral jumper cables and pre-finished connection accessories gives continuity to each circuit with the sector diversion box FG-DTCS.

A TOUGH AND STURDY DESIGN
Small in diameter, the FG-ACS sense cable is light, flexible and of an easily identifiable colour. Its helical jacket construction, compression connected on an extruded central core, reduces the risk of contamination and false alarms. It is made from the highest quality materials which are abrasive resistant in hostile environments.
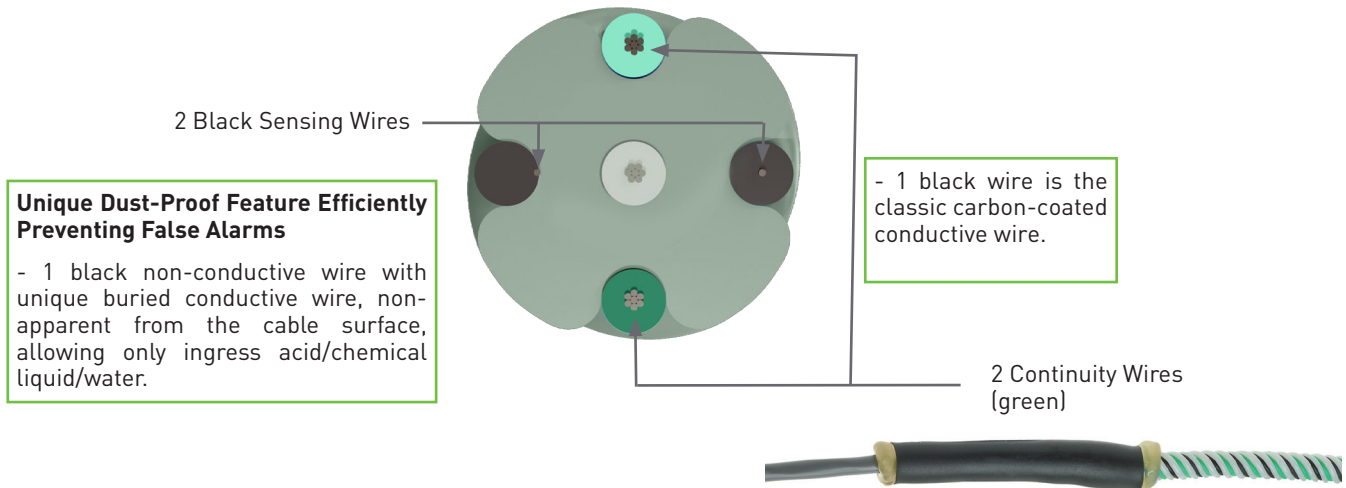
Technical Data

Compatibility	Locating units: FG-SYS, FG-NET, FG-BBOX (via Diversion Box: FG-DTCS), FG-ALS8, FG-ALS4 Non-locating unit: FG-A
Maximum Temperature Exposure	85°C
Weight	25g per metre
Sense Cable Diameter & Material	7.5 mm, PVDF jacket
Four Sensor Wires Diameter & Material	1.2 mm, PE-based polymer
Core Material	PE-based polymer
Liquid Quantity To Active Alarm	50-100mm on the sense cable
FG-ACS Colour	Green

Product Diagram

FG-ACS sense cable in section with its four sensing wires

2 Communication Wires and 2 Wires for Locating and Detection

2 Black Sensing Wires

- 1 black wire is the classic carbon-coated conductive wire.

Unique Dust-Proof Feature Efficiently Preventing False Alarms

- 1 black non-conductive wire with unique buried conductive wire, non-apparent from the cable surface, allowing only ingress acid/chemical liquid/water.

2 Continuity Wires (green)

Technical Information

In an aqueous environment, the resistance of the following products is as follows:

- A = The cable completely resists in the presence of the liquid considered.
- B = The cable resists, but undergoes a slow corrosion.
- C = The cable corrodes rapidly in the presence of the liquid considered.

In all cases where a leak is detected, it is advisable to identify the source of the leak and to repair the leak quickly. In most cases the contaminated FG-ACS cable can be washed and re-used.

This list is not exhaustive, for other chemicals, specific concentrations or temperatures please consult with your TTK representative.

Acetic acid	A	Hydrofluoric acid	A	Sea water	A
Ammonium hydroxide	B	Liquid Chlorine	A	Silver nitrate	A
Carbonic acid	A	Nitric acid	A	Sodium hydroxide	B
Caustic soda	A	Peracetic acid	B	Sodium hypochlorite	A
Formic acid	A	Phosphoric acid (95%)	A	Sodium sulfate	A
Glucose	A	Potassium hydroxide	B	Sulfuric acid	A
Hydrochloric acid	B	Salicylic acid	A		

Identification Codes

FG-ACS15	Sector acid sense cable in 15m length
FG-ACS7	Sector acid sense cable in 7m length
FG-ACS3	Sector acid sense cable in 3m length
Accessories:	
FG-DTCS	Addressable box
CF-EC100	100 hold-down clips with cold adhesive glue
ES-EC	40 signal tags

Certificate

CE

All TTK sensing cables are designed as a part of the leak detection system thus included in the approval certification for TTK monitoring panels.
FG-SYS system meets the requirements of all European Standards in EN 50081 and EN 50082 EMC.
FG-SYS system meets the TÛV requirements, according to IEC 61010-1/A2.
FG-SYS system is UL Listed.