

- ▶ Digital Pin-Point Leak Location
- ▶ Embedded Microprocessor
- ▶ LED Status Indicator
- ▶ Detects Acid and Corrosive Chemical Liquids
- ▶ Pre-connected in Standard Lengths

## Description

The TTK digital sense cable FG-AC detects and pin-points the location of acid and corrosive chemical liquids at any point along its length. The FG-AC sense cable is designed for the FG-SYS or the FG-NET digital units to respond intelligently in the event of any leaks of liquids. The FG-AC sense cable is installed in critical areas in order to provide permanent protection to limit the financial consequences of an undetected acid leak. The typical application are in laboratories, fab plants, cleanrooms, etc. The FG-AC sense cable is made in corrosion and abrasion resistant cable that can be reused after cleaning. It is recommended to install FG-AC in a dry and clean environment for an efficient detection.

## Features & Benefits

### FEATURES

- Available in standard and pre-connected lengths of 3, 7 and 15 metres. They can be interconnected to provide an expandable network of leak detection.
- Each FG-AC sense cables contain an embedded microprocessor, it intelligently monitors the cable status, it provides continuous real-time communication to the TTK digital units.
- Each cable has a high visibility LED to provide quick green/red identification of the cable status:
  - Green LED: normal status, no alarm raised;
  - Red LED: leak detection on the cable;
  - LED off: cablebreak on this or any upstream cable.
- Small diameter, light, flexible and in an easily identifiable green and white colour.
- Ingenious design: 4 PVDF conducted helical construction - compression-connected on an extruded central core, insensitive to dust and metal particles contamination, prevents false alarms.

- Fixing clips available to fasten the sense cables.
- A set of Belden 8723 jumper cables and connection accessories gives continuity to each circuit.

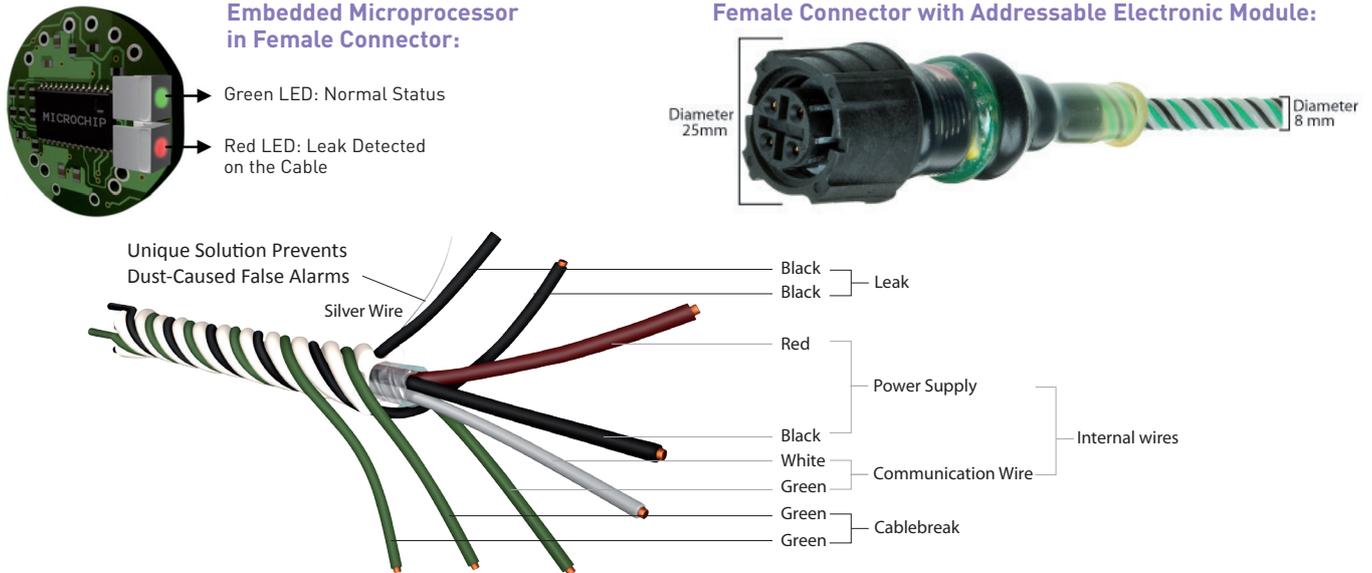
### BENEFITS

- Detects and pin-points the location of an acid leak to the nearest metre along the length of the cable.
- Detects and localizes cablebreak on the cable.
- Short drying time.
- The FG-AC sense cable is a non-absorbent design that can be reused after leaks, reducing the maintenance costs.
- Easy installation with pre-finished male and female connectors.
- Flexible design: in both liner and sector mode (via FG-DTC box).

## Technical Data

|   |   |
|---|---|
| <b>Compatibility</b>                                  | Digital units: FG-SYS; FG-NET; FG-BBOX<br>Diversion box: FG-DTC |
| <b>Maximum Rated Temperature</b>                      | 85°C  |
| <b>Maximum Length of Digital Sense Cable per Unit</b> | Up to 120 lengths of FG-AC, connected to 3 circuits             |
| <b>Connector Type</b>                                 | FCI-Clipper   |
| <b>Weight</b>   | 25g per metre without connector                                 |
| <b>Sense Cable Diameter</b>                           | 8mm with PVDF jacket (without connector)                        |
| <b>Four Sensor Wires Diameter</b>                     | 1,2 mm with PVDF jacket   |
| <b>Core Material</b>                                  | Flame-retardant low-smoke PEBD-based polymer                    |
| <b>Liquid Quantity to Active Alarm</b>                | 50-100mm on the sense cable                                     |
| <b>Drying Time</b>                                    | 10 seconds after drying the sense cable                         |
| <b>Breaking Strength for Sense Cable</b>              | Minimum 75 kg   |
| <b>FG-AC Colour</b>                                   | White and green   |

# Product Diagram



## Technical Information

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

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-AC 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 | Hydrochloric acid | B | Glucose             | A |
| Alcohols          | A | Benzene           | A | Hydrocarbons        | A |
| Ammoniac          | B | Chloroform        | A | Sea water           | A |
| Nitric acid       | A | Gasoline          | A | Sodium sulfate      | A |
| Silver nitrate    | A | Ethanol           | A | Sodium hydroxide    | B |
| Hydrogen peroxide | A | Hydrofluoric acid | A | Salicylic acid      | A |
| Carbonic acid     | A | Formic acid       | A | Sulphuric acid      | A |
| Ferrous chloride  | A | Freon             | A | Toluene             | A |
| Calcium carbonate | A | Tar               | A | Potassium hydroxide | B |

## Identification Codes

|                    |  |
|--------------------|--|
| <b>FG-AC15</b>     | Addressable Acids Sensing Cable in 15m With Connectors             |
| <b>FG-AC7</b>      | Addressable Acids Sensing Cable in 7m With Connectors              |
| <b>FG-AC3</b>      | Addressable Acids Sensing Cable in 3m With Connectors              |
| <b>Accessories</b> |  |
| <b>FG-CLC</b>      | Leader Cable 3,5m, on 'TTK Bus 8723'                               |
| <b>FG-NC(x)</b>    | Belden jumper cables in variety of lengths (x): 3, 7, or 15 metres |
| <b>FG-TMC</b>      | Digital End Plug for FG-EC/AC Cables                               |
| <b>FG-DTC</b>      | Diversion Box for 'TTK Bus 8723'                                   |
| <b>CF-EC100</b>    | 100 Hold-down Clips with adhesive for Water & Acids Cables         |
| <b>ES-EC</b>       | 40 Tags for Water & Acids Cables                                   |

## Certificates



FG-AC sense cable is a part of FG-SYS digital system, it meets the requirements of all European Standards in EN 50081 and EN 50082 EMC.  
 FG-AC sense cable is certified by NFPA 262 (known also as UL910). NFPA = National Fire Protection Association  
 FG-SYS digital system meets the TÜV requirements, according to IEC 61010-1/A2.  
 FG-SYS digital system is UL Listed.

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