FG-AC

Digital Acids and Water Sense Cable

Product Datasheet

- ▶ Digital Pin-Point Leak Location
- ▶ Embedded Microprocessor
- ▶ LED Status Indicator
- ▶ Acids, Corrosive Chemical Liquids and Water Detection
- ▶ Pre-connected in Standard Lengths
- ▶ Dust-proof Feature

Description

- The TTK digital sense cable FG-AC detects and pin-points the location of acids, corrosive chemical liquids and water at any point along its length.
- The FG-AC sense cable is designed for the FG-SYS or the FG-NET digital units to smartly respond to 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 water and acids leak. The typical application are in laboratories, fab plants, semi-conductor plants, cleanrooms, etc.
- The FG-AC sense cable 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 m. They can be interconnected to provide an expandble 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 light grey colour.
- Ingenious design: four sensing wires of helical construction, compressed and connected on an extruded central core, **insensitive to dust contamination**.
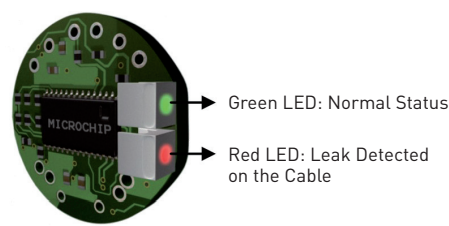- Fixing clips available to fasten the sense cables.

BENEFITS

- Detects and pin-points the location of acids and water leak to the nearest meter along the entire length of the cable.
- Detects and localizes cablebreak on the cable.
- Offers short drying time.
- The FG-AC sense cable is a non-absorbent design that **can be reused** after cleaning, reducing the maintenance costs.
- **Efficiently prevent false alarms** that have been triggered by **dust, condensation and metal parts**, thanks to the unique and patented cable structure.
- Easy installation with pre-finished male and female connectors.
- Flexible design: in both liner and sector mode (via FG-DTC box).
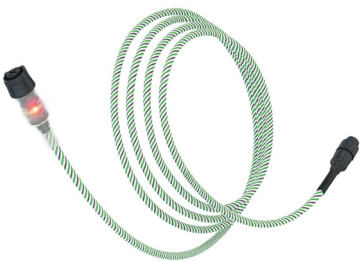
Technical Data

Compatibility	Digital units: FG-SYS; FG-NET; FG-BBOX Diversion box: FG-DTC
Operating Temperature	-40° to 60°C
Minimum Bend Radius	20 mm
Maximum Length of Digital Sense Cable per Unit	Up to 120 lengths of FG-AC, connected to 3 circuits
Connector Type	FCI-Clipper
Weight	25 g/m
Sense Cable Diameter & Material	8 mm (without connector) in PVDF jacket
Four Sensor Wires Diameter & Material	1.2 mm with PE jacket
Core Material	PE-based polymer
Drying Time	10 seconds after drying the sense cable
Breaking Strength for Sense Cable	Minimum 75 kg
FG-AC Colour	White and light grey

Product Diagram

**Embedded Microprocessor
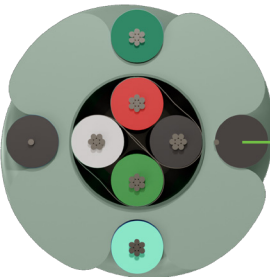in Female Connector:**

Green LED: Normal Status

Red LED: Leak Detected
on the Cable

This ingenious cable structure allows the cable to:
- **sense only ingress acids/ water**,
- and **not to be disturbed by the presence of dust and all kinds of conductive residue** from the environment that has accumulated on the cable surface;

thus, **efficiently preventing contamination alarms**.

FG-AC Sense Cable

FG-AC Sense Cable Cutting View

Unique Dust-Proof Feature
Preventing False Alarms

Non-contractual images

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-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	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-AC15	Addressable Acids Sense Cable in 15m With Connectors
FG-AC7	Addressable Acids Sense Cable in 7m With Connectors
FG-AC3	Addressable Acids Sense Cable in 3m With Connectors
Accessories	
FG-CLC	Leader Cable 3.5 m
FG-NC(x)	'TTK 8723' Neutral Cable With Connectors in Variety of Lengths (x): 3, 7, or 15 m
FG-TMC	End Termination
FG-DTC	Digital Diversion Box
CF-EC100	100 Hold-down Clips with Adhesive
ES-EC	40 Signal Tags

Certification

CE

FG-AC 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.**

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