

- ▶ Digital Pin-Point Leak Location
- ▶ Embedded Microprocessor
- ▶ Acids, Corrosive Chemical Liquids and Water Detection
- ▶ Unique Dust-Proof Feature Efficiently Preventing False Alarms

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.

Key Advantages

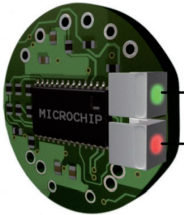
- Available in standard and pre-connected lengths. They can be interconnected to provide an expandable network of leak detection.
- Each FG-AC sense cables contain an embedded microprocessor, it intelligently monitors the cable status, it provides continuous real-time communication to the TTK digital 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 light gray 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.
- 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 prevents 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 Diverson box: FG-DTC
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, 7.5 mm (± 0.5 mm)
Sensor Wires Material & Diameter	PE, 1.2 mm
Core Material	PE
Sense Cable Weight (3, 7, 15 m)	0.3 kg, 0.5 kg, 1.2 kg
Minimum Bend Radius	20 mm
Sense Cable Colour	Green and light gray
Operating Temperature	-15°C to 55°C
Ingress Protection	IP 67

Product Diagram

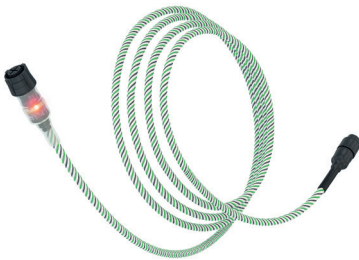
Embedded Microprocessor in Female Connector:



Green LED: Normal Status

Red LED: Leak Detected on the Cable

FG-AC Sense Cable



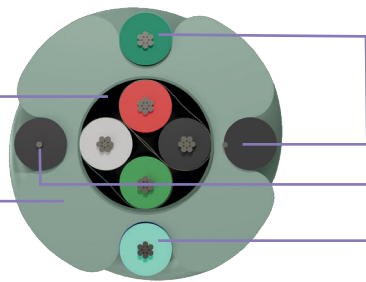
This ingenious cable structure allows the cable to:

- 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.

Unique Dust-Proof Feature Preventing False Alarms

FG-AC Sense Cable Cutting View



Core Material: PE

Sense Cable Material: PVDF

Four Sensor Wires Material: PE

Non-contractual images

Chemical Resistance

In an aqueous environment, the cable's resistance to various products is categorized as follows:

- A: The cable is resistant but experiences slow corrosion over time.
- B: The cable corrodes rapidly when exposed to the liquid in question.

In all cases where a leak is detected, it is recommended to quickly identify and repair the source of the leak. Avoid leaving the cable in contact with the liquid. In most instances, the contaminated FG-ACS cable can be cleaned and reused.



This list is not exhaustive. For information regarding other chemicals, specific concentrations, or temperatures, please consult 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-AC3	Addressable Acids Sense Cable in 3 m with Connectors
FG-AC7	Addressable Acids Sense Cable in 7 m with Connectors
FG-AC15	Addressable Acids Sense Cable in 15 m with Connectors
Accessories:	
FG-CLC-PL	Plenum Leader Cable 3.5 m
FG-NC'N'-PL	Plenum Neutral Cable 'N' (3, 7, 15 or 30 m)
FG-TMC	End Termination
FG-DTC	Digital Diversion Box
CF-EC100	100 Hold-down Clips with Adhesive
ES-EC	40 Signal Tags

Certification



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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■ TTK UK Ltd. / 3 Luke Street London EC2A 4PX / United Kingdom / T : 0207 729 6002 / F : 0207 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 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