

- ▶ Digital Pin-Point Leak Location
- ▶ Equipped with External Braid
- ▶ Acids, Corrosive Chemical Liquids and Water Detection
- ▶ Unique Dust-Proof Feature Efficiently Preventing False Alarms

Description

- The TTK digital sense cable FG-ACB detects and pin-points the location of water, acids and corrosive chemical liquids at any point along its length.
- The FG-ACB sense cable is designed for the FG-SYS or the FG-NET digital units to smartly respond to any leaks of liquids.
- The FG-ACB 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-ACB sense cable is supplied with an external PVDF based braided jacket and is specially designed for pipes solution. (This can be held in place using a cable tie, if required.)
- The FG-ACB sense cable can be reused after cleaning. It is recommended to install FG-ACB in a dry and clean environment for an efficient detection.

Key Advantages

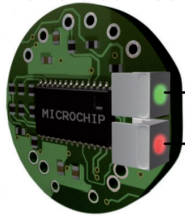
- Available in standard and pre-connected lengths of 9, 22 and 49 ft (3, 7 and 15 m). They can be interconnected to provide an expandable network of leak detection.
- Same function as FG-AC Digital Sense Cable, the FG-ACB sense cables contain an embedded microprocessor, it intelligently monitors the 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.
- 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 water and acids leak to the nearest meter along the length of the cable.
- Detects and localizes cablebreak on the cable.
- Offers short drying time.
- The FG-ACB sense cable is a non-absorbent design that **can be reused** after cleaning, reducing the maintenance costs.
- **Efficiently prevents false alarms 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 secondes
Sense Cable Material & Nominal Diameter	PVDF, 0.48 in (12 mm)
Sensor Wires Material & Nominal Diameter	PVDF, 0.05 in (1.2 mm)
Braid Material	PVDF
Core Material	Plenum cable
Minimum Bend Radius	0.79 in (20 mm)
Sense Cable Color	Dark green khaki
Operating Temperature	5°F to 131°F [-15°C to +55°C] (Note: The sense cable itself is rated for temperatures up to +185°F [+85°C].)
Ingress Protection	IP 67

Product Diagram

Embedded Microprocessor in Female Connector:



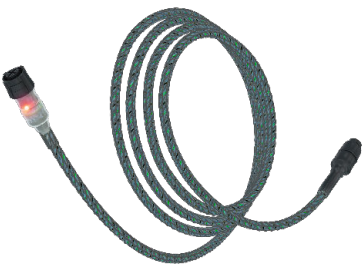
Green LED: Normal Status
Red LED: Leak Detected on the Cable

The ingenious cable structure allows the cable to:

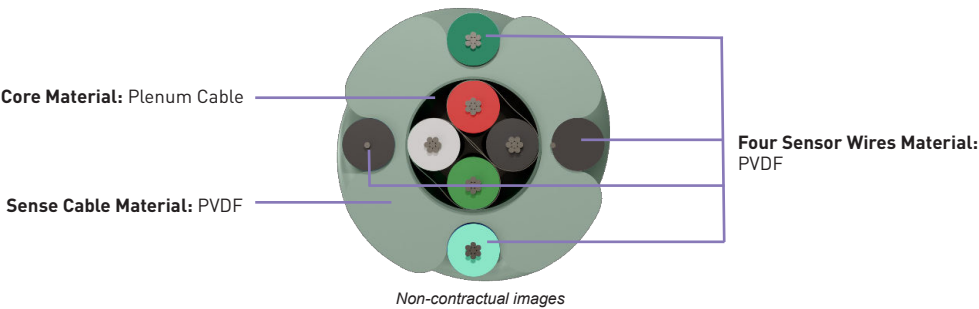
- **sense only ingress acids/ water,**
- **and not to be disturbed by the presence of dust and all kinds of conductive residue** from the environment that has accumulated on the cable surface;

thus, **efficiently preventing contamination alarms.**

FG-ACB Sense Cable



Cable Cutting View (without External Braid)



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-ACB3	Addressable Acids Sense Cable in 9 ft (3 m) with External Braid
FG-ACB7	Addressable Acids Sense Cable in 22 ft (7 m) with External Braid
FG-ACB15	Addressable Acids Sense Cable in 49 ft (15 m) with External Braid
Accessories	
FG-CLC-PL	Plenum Leader Cable 11.5 ft (3.5 m)
FG-NC'N'-PL	Plenum Jumper Cables 'N': 9, 22, 49 or 98 ft (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



FG-ACB 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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