FG-ODR
Low Sensitivity Addressable Oil Sense Cable

Product Datasheet
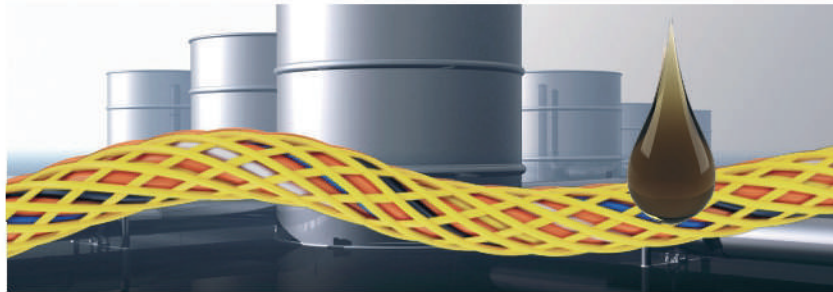
► Low Sensitivity
► Suitable for volatile liquids in confined environments
► Suitable for weakly polluted environments
► Leak Location on Section Length
► Re-usable and Pre-connected Cable
► Suitable for Explosive Area Service
► Insensitive to Water and Inorganic Pollutants

Description

- FG-ODR is a digital sense cable for detection and location, along the entire length, of liquid hydrocarbons and liquid insoluble in water present on the cable.
- The FG-ODR cable is suitable for using with volatile liquids in confined environments and weakly polluted environments.
- It allows multiple leak detection and location thanks to independent digital addressing, enabled by an embedded microchip in each FG-ODR sense cable.
- Re-usable after leak detection.
- Can be installed in humid environment, as it is insensitive to water and inorganic contamination.

Features & Benefits

FEATURES
- Standard length (3 m, 7m, 12m and 20m) sensor sections or long line section allowing optimised system architecture.
- Microprocessor embedded in each FG-ODR sense cable allowing independent digital transmission to the alarm unit.
- Standard length sense cable provided with built-in plug-socket connector.
- Long line provided with built-in intermediate embedded connections (for each section), plus connector at extremities on demand.
- Structure of the sense cable comprising a silicon sensing wire, a continuity wire, a communication wire (proprietary bus) and the power supply wires. Protective external PE braid built on the cable.
- Intrinsically safe - can be used in classified areas: Ex ia IIB T4 Ga (IECEx "Zone 0").
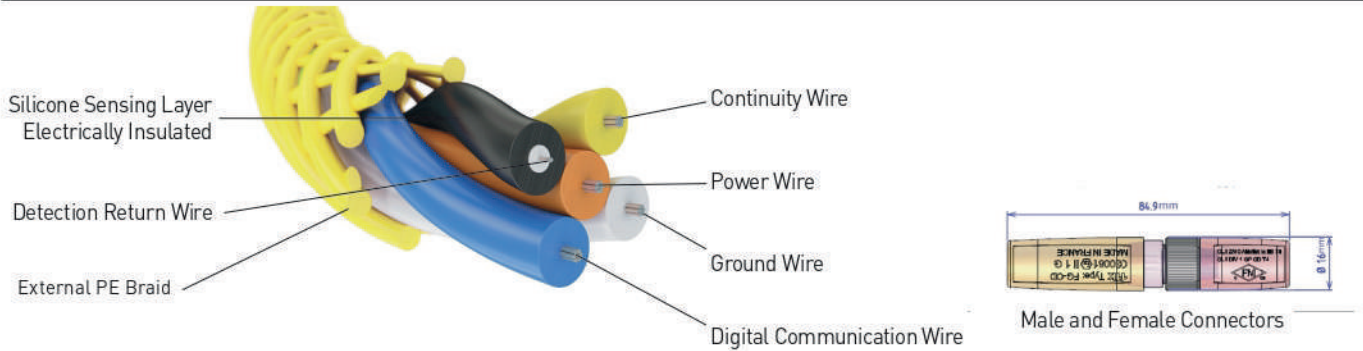
BENEFITS
- Reliable detection:
  - Sensitive to volatile liquid hydrocarbons.
  - Insensitive to water, inorganic pollutants and external loads (pressure).
- Examples of detection time: **Gasoline: 20-30 minutes (*), Jet Fuels: 2-4 hours (*), Diesel Oil: 3-6 hours** (*).
- Detects and locates hydrocarbon leaks on the section length.
- Can be reused, allowing leak detection tests under real conditions.
- The same unit FG-NET can be connected to FG-ODR sense cables and mixed with water or acids / bases sense cables at the same time.
- Easy to install and remove: standard FG-ODR cables pre-connected with male / female connectors.

Note (*): depending on liquid composition and leak conditions

Connectivity & System Capacity

Connectivity	Digital units: FG-NET, FG-NET-LL, FG-ALS8-OD, FG-ALS4-OD, FG-A-OD, FG-STAD Satellite devices: FG-BBOX, FG-BBOX-LL Compatible with sector or linear water or acids / bases sense cables
System Capacity	3m, 7m, 12m and 20m standard length per FG-ODR sense cable Up to 59 x FG-ODR sense cables per digital unit circuit - depending on overall circuit length 3 circuits per FG-NET, 2 circuits per FG-BBOX

Cable Structure

Silicone Sensing Layer Electrically Insulated

Detection Return Wire

External PE Braid

Continuity Wire

Power Wire

Ground Wire

Digital Communication Wire

Male and Female Connectors

Technical Data

Cable nominal diameter	10 mm
Connector nominal diameter	16 mm
Embedded (Long Line) connection nominal diameter	16 mm
Cable nominal weight (without connectors)	7 kg / 100m
Min. bending radius	100mm
Max. Pressure	3 bar
Min. Max. working temperature	-30°C ≤ Tamb ≤ +100°C
Reusable	Yes
Direct burial	Possible
Maximum tensile strength (incl. connection)	40 kg
Expected life span (at working conditions)	>10 years
Explosive area classification	Ex ia IIB T4 Ga (ATEX "Zone 0")
Connector protection index classification (DIN/EN/IEC60529)	IP 68

Identification Codes

FG-ODR20	Addressable Oil Sensing Cable in 20m with Connectors
FG-ODR12	Addressable Oil Sensing Cable in 12m with Connectors
FG-ODR7	Addressable Oil Sensing Cable in 7m with Connectors
FG-ODR3	Addressable Oil Sensing Cable in 3m with Connectors
FG-ODRLxxyy/xxyy/xxyy	Pre-Assembled Addressable Oil Sensing Cable with connectors
	xx =length of sections, yy = number of sections
	i.e.: FG-ODRL2004: Pre-assembled 4 lengths of cables FG-ODRL : 4 sections of 20m
Accessories:	
FG-DOD KIT	Kit including FG-DOD interface box + FG-CLOD leader cable + FG-TMOD end plug
FG-CLOD	Leader Cable, on 'OD Bus 8771'
FG-TMOD	Digital End Plug on 'OD Bus 8771' for FG-ODR Cable
FG-NOD 'N'	'OD Bus 8771' Neutral Cable 'N' (30, 15, 7, 3, 1m) With Connectors
ES-OD	40 Tags for Oil Cable
CF-OD50	50 Hold-down Clips with adhesive for Oil Cables

Certificates

TTK - Type: FG-OD
CE 0081 ⟨Ex⟩ II 1 G
Ex ia IIB T4 Ga
LCIE 13 ATEX 3082 X
LECEx LCIE 13.0072X

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