#### **Technical Information FLD-HSC** High-Reliability Hydrocarbon Sensor



#### Description

The FLD-HSC is a high-performance passive hydrocarbon detector designed specifically for detecting the unwanted presence of a wide range of liquid hydrocarbons. This multiplexed sensor cable provides quick reaction to light and heavy hydrocarbons and can be used in outdoor environment. The detected hydrocarbons are primarily gasoline, diesel, jet fuel, motor oils, lube and transformer The FLD-HSC sensor cable is offered as factoryoils. etc. assembled modular sensor with heavy-duty waterproof connectors (variant -C), or as fixed-length Multi-section encapsulated sensor string with oil-resistant 10-ft leader cable Photos and illustrations are not contractually binding and are subject to (variant -I).

The sensor is specially engineered for reliable operation in both indoor and outdoor conditions. The waterproof connectors of -C version allow the sensor to be immune to short-term immersion in water. The encapsulated -L version is designed for long-term immersion in water in demanding outdoor conditions. The semiconductive sensor material is extremely durable and can withstand long-term exposure to temperatures in excess of 100°C/212°F. The sensor cable is UV resistant, anti-termite and anti-rodent and can be used in tropical applications.

The sensor cable contains all the wiring necessary for long-range applications and for the connection in series of several sensors to the same EVTeam acquisition module. The version FLD-HSC-ML allows up to 8 sensor sections to be connected to the same module while the version FLD-HSC-TL is limited to 3 sensor sections.

When used for applications in hazardous areas, the sensor cable shall be wired to an intrinsically-safe acquisition modules, or

### Features and Benefits

- Detects reliably all fuels and oils
- Reusable after contamination
- Fully passive construction, guaranteed service life of 20+ years
- Insensitive to vibrations, methane, water
- Non affected by continuous exposure to sun light
- Wide operating temperatures range
- Reduced maintenance and easy troubleshooting



change without notice.

alternatively through a Zener barrier to a sensor module installed in the safe zone. Please contact EVteam Corp. for additional information.

Typical detection time at 20°C/68°F:

Unleaded Gasoline:	1 minute 30 seconds
Diesel/Jet Fuel:	3 minutes
Light Crude Oils:	8–11 minutes
Motor/Silicone Oils:	12-25 minutes
Bunker C Oil:	45–70 minutes

#### **Certifications:**



## Typical Applications

- Monitoring of diesel generators, fuel storage tanks
- Liquid hydrocarbons leak detection in tank farms, compounds, along pipeline sections
- Detection of leaking fuel from airport hydrant systems
- Monitoring of Military and Scientific fuel depots in demanding environmental conditions
- Leak detection in commercial buildings, hospitals, data centers, etc.
- Monitoring of oil-filled power transformers, lube oil storage tanks, etc.

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# Technical Data

Operating Life	20+ years at 40°C (materials tested in natural ageing conditions)
Weight	120 g/meter max.
Fire Rating	Non-flame propagating
Connector Ingress Rating	IP68 - suitable for outdoor/direct burial
Operating Temperature Range	-40°C to +85°C
Recommended Maximum Section Length	15 meters / 50 feet
Hazardous Locations Classification	IS/ I/ 1/ ABCD/ T4 ; I/ 0/ AEx/ ia IIC T4 ; Class I, Zone 0, Ex ia T4 Class I, Div. 1, Groups A,B,C,D; T4

Warning! The sensor cable FLD-HSC can only be used with the sensor modules manufactured by EVTeam Corp. Other applications will lead to unpredictable performance and unexpected results. For performance metrics, please contact EVTeam Corp.

# **Product Codes**

FLD-HSC-TL-C-10	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 3 sections – length of 3 m/ 10-ft
FLD-HSC-ML-C-10	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 8 sections – length of 3 m/ 10-ft
FLD-HSC-TL-C-25	Modular Multiplexed Sensor cable for hydrocarbon fluids - up to 3 sections - length of 7.5 m/ 25-ft
FLD-HSC-ML-C-25	Modular Multiplexed Sensor cable for hydrocarbon fluids - up to 8 sections - length of 7.5 m/ 25-ft
FLD-HSC-TL-C-50	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 3 sections – length of 15 m/ 50-ft $$
FLD-HSC-ML-C-50	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 8 sections – length of 15 m/ 50-ft
FLD-HSC-TL-Lx-10*	Encapsulated Sensor cable for hydrocarbon fluids with 3 m/ 10-ft leader cable - length of 3 m/ 10-ft
FLD-HSC-ML-Lx-10*	Encapsulated Sensor cable for hydrocarbon fluids with 3 m/ 10-ft leader cable - length of 3 m/ 10-ft
FLD-HSC-TL-yyy*	Bulk Sensor cable for hydrocarbon fluids - up to 3 sections

FLD-HSC-ML-yyy\* Bulk Sensor cable for hydrocarbon fluids - up to 8 sections

\*x in the product codes above denotes the number of sections per sensor string of -L variant - up to 3 for FLD-HSC-TL and up to 8 for FLD-HSC-ML \*yyy in the product codes above denotes the length in feet for the bulk sensor cable. Maximum length of bulk sensor cable: 250 m / 820-ft

# Manufacturer EVTeam Corp.

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