

FLD-HSC-TL

High-Reliability Hydrocarbon Sensor

The FLD-HSC-TL 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 environments.

The detected hydrocarbons are primarily gasoline, diesel, jet fuel, motor oils, lube, and transformer oils, etc. The FLD-HSC-TL sensor cable is offered as factory-assembled modular sensor with heavy-duty waterproof connectors (variant -C), or as fixed-length encapsulated sensor string with 10-ft leader cable.

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 version is designed for long-term immersion in water in demanding outdoor conditions. The semi-conductive sensor material is extremely durable and can withstand long-term exposure to temperatures in excess of 212°F/100°C. The sensor cable is UV resistant, anti-static, 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 NAFTOSENSE acquisition module. FLD-HSC-TL allows up to 3 sensor sections to be connected to the same module.

When used for applications in hazardous areas, the sensor cable shall be wired to an intrinsically safe acquisition module, or alternatively through a Zener barrier to a sensor module or controller installed in the safe zone. Please contact NAFTOSENSE for additional information.



Typical detection times:

- Unleaded Gasoline: < 30 seconds*
- Diesel/Jet Fuel: < 30 seconds*
- Light Crude Oils: 4-5 minutes
- Heavy Crude Oils: 8-10 minutes
- Motor/Bunker Oils: 10-13 minutes

**These performance metrics are validated by FM Approvals*

Approvals:



Tested by FM Approvals for compliance to FM Class 3610 and FM7745 standard

FLD-HSC-TL

High-Reliability Hydrocarbon Sensor

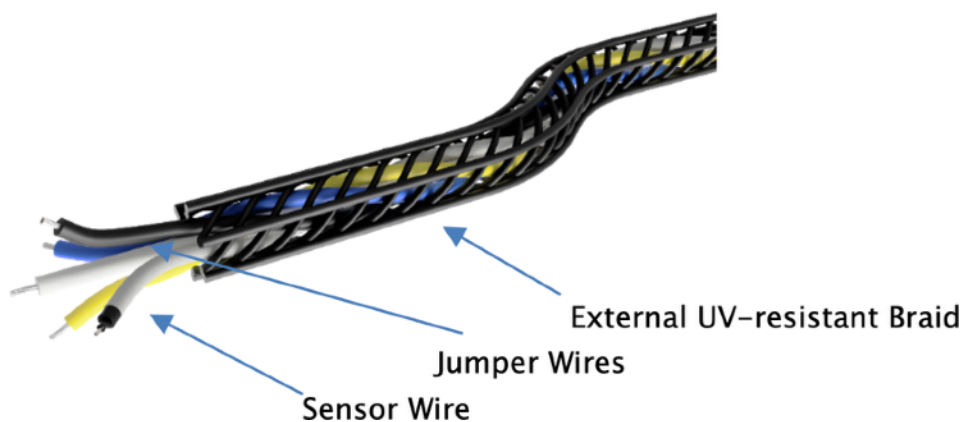
Features and Benefits

- Detects very quickly leaks of combustible liquids in a very wide temperature ranges in under 30 seconds!
- 10-Year Factory warranty on Sensors that are cleanable and reusable after contamination
- Insensitive to vibrations, methane, water, salt fog
- Non affected by continuous exposure to sun light
- Fully passive sensor – suitable for installations in hazardous locations
- Reduced maintenance and easy troubleshooting

Typical Applications

- Leak detection around generators, Subbase tanks, day tanks, and supply and return plumbing in Data Centers, Industrial Facilities, Hospitals and Commercial buildings
- Detection of leaking fuel oil from boiler installations, Fuel oil storage, and supply and return plumbing
- Detection of leaking fuel from airport hydrant systems
- Leak detection in fuel retail facilities
- Monitoring of oil-filled power transformers, lube oil storage tanks, etc.


Sensor Cable Construction:



Photos and illustrations are not contractually binding and are subject to change without notice.

FLD-HSC-TL

High-Reliability Hydrocarbon Sensor

Technical Data	
Operating Life	20+ years at 104°F (materials tested in natural ageing conditions)
Weight	1.29 oz per foot (120 g/meter max)
Fire Rating	Non-flame propagating
Connector Ingress Rating	IP68 – suitable for outdoor/direct burial
Operating Temperature Range	-40°F to +185°F (-40°C to +85°C)
Maximum Section Length	50 feet (15 m)
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  II 1 G Ex ia IIC T4 Ga

Warning! The sensor cable FLD-HSC-TL can only be used with the sensor modules manufactured by NAFTOSENSE. Other applications will lead to unpredictable performance and unexpected results and will invalidate the FM7745 certification. For detailed performance metrics, please contact NAFTOSENSE.

Product Codes	
FLD-HSC-TL-C-10	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 3 sections – length of 10-ft (3 m)
FLD-HSC-TL-C-25	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 3 sections – length of 25-ft (7.5 m)
FLD-HSC-TL-C-40	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 3 sections – length of 40-ft (12 m)
FLD-HSC-TL-C-50	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 3 sections – length of 50-ft (15 m)
FLD-HSC-TL-10*	Single-section Sensor cable for hydrocarbon fluids, no connectors, with 10-ft (3 m) indoor-rated lead cable – length of 10-ft (3 m)
FLD-HSC-TL-25*	Single-section Sensor cable for hydrocarbon fluids, no connectors, with 10-ft (3 m) indoor-rated lead cable – length of 25-ft (7.5 m)
FLD-HSC-TL-40*	Single-section Sensor cable for hydrocarbon fluids, no connectors, with 10-ft (3 m) indoor-rated lead cable – length of 40-ft (12 m)
FLD-HSC-TL-50*	Single-section Sensor cable for hydrocarbon fluids, no connectors, with 10-ft (3 m) indoor-rated lead cable – length of 50-ft (15 m)

*On request, the single-section sensor can be supplied with longer lead cable of up to 300-ft (90 m). The sensor length can be also extended to 50-ft (15 m).