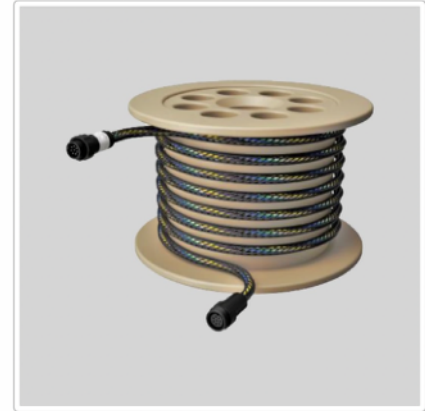


FLD-HSC

High-Reliability Hydrocarbon Sensor

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. Rapid detected hydrocarbons include gasoline, diesel, jet fuel, motor oils, lube, and transformer oils, etc. The FLD-HSC sensor cable is offered as factory- terminated modular sensor with heavy-duty waterproof connectors (model -C), or as fixed-length multi-section encapsulated sensor string with oil-resistant 10-ft leader cable (model -L).



The sensor is specially engineered for reliable operation in both indoor and outdoor conditions. The waterproof connectors of -C model allow short-term immersion in water. The encapsulated -L version is designed for long-term immersion. The semi- conductive sensor material is extremely durable and can withstand long-term exposure to temperatures more than 212°F (100°C). 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 Naftosense monitoring module. The version FLD-HSC-ML allows up to 8 sensor sections to be connected to the same monitoring 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 alternatively through a Zener barrier to a sensor module installed in the safe zone. Please contact Naftosense for additional information.

Features and Benefits

- Detects reliably all fuels and oils
- Reusable after contamination
- Fully passive construction, guaranteed service life of 10 years
- Insensitive to vibrations, methane, water
- UV Rated outer jacket safe for continuous exposure to sun light
- Wide operating temperatures range
- Reduced maintenance and easy troubleshooting
- 10-year warranty

FLD-HSC

High-Reliability Hydrocarbon Sensor

Typical Applications

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

Agency Approvals

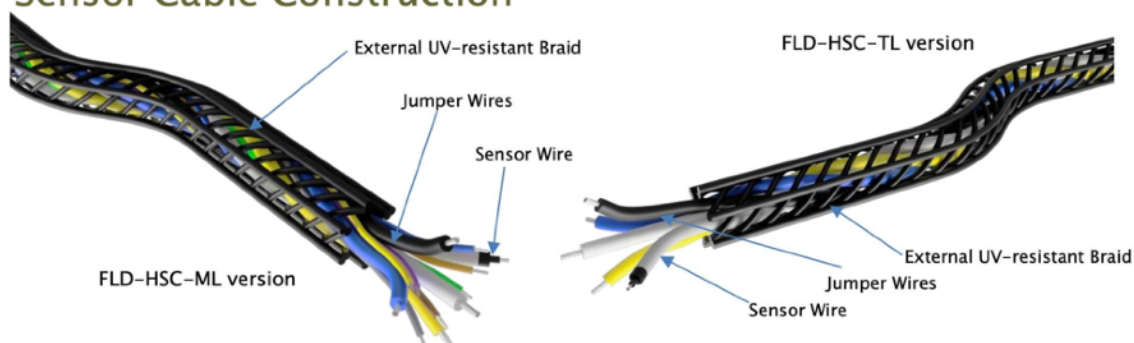
- In the US: Intrinsically safe - Class I, Division 1, Groups A, B, C and D, Class I, Zone 0, AEx ia IIC
- Atex: Intrinsically safe – II 1 G, Ex ia IIC Gb T4
- IECEx: Intrinsically safe – Ex ia IIC Gb T4
- All testing by FM Approvals for compliance to the following standards: FM Class 3600 & 3601, ANSI/ISA 60079-0 2013 & 60079-11, CAN/CSA-C22.2 No. 60079-0 & No. 60079-11, IEC 60079-0 & 60079-11, EN 60079-0 & 60079-11

Technical Information

Typical Detection Time at 68°F (20°C)

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

Sensor Cable Construction



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

FLD-HSC

High-Reliability Hydrocarbon Sensor

Technical Data	
Operating Life	20+ years at 40°C (materials tested) 10-year factory warranty
Compatibility	ALL Naftosense Monitoring Modules
Weight	1.3oz / ft (120 g/m maximum)
Fire Rating	Non-flame propagating
Connector Ingress Rating	IP68 - suitable for outdoor/direct burial
Operating Temperature Range	-67°F to 212°F (-55°C to 100°C)
Recommended Maximum Section Length	50 ft (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
Warranty	10 years

Warning! The sensor cable FLD-HSC can only be used with the sensor modules manufactured by Naftosense. Other applications will lead to unpredictable performance and unexpected results. For 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-ML-C-10	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 8 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-ML-C-25	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 8 sections – length of 25 ft (7.5 m)

FLD-HSC

High-Reliability Hydrocarbon Sensor

Product Codes	
FLD-HSC-TL-C-50	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 3 sections – length of 50 ft (15 m)
FLD-HSC-ML-C-50	Modular Multiplexed Sensor cable for hydrocarbon fluids – up to 8 sections – length of 50 ft (15 m)
FLD-HSC-TL-Lx-10*	Encapsulated Sensor cable for hydrocarbon fluids with 10 ft (3 m) leader cable – length of 10 ft (3 m)
FLD-HSC-ML-Lx-10*	Encapsulated Sensor cable for hydrocarbon fluids with 10 ft (3 m) leader cable – length of 10 ft (3 m)
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 model – 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: 820 ft (250 m)