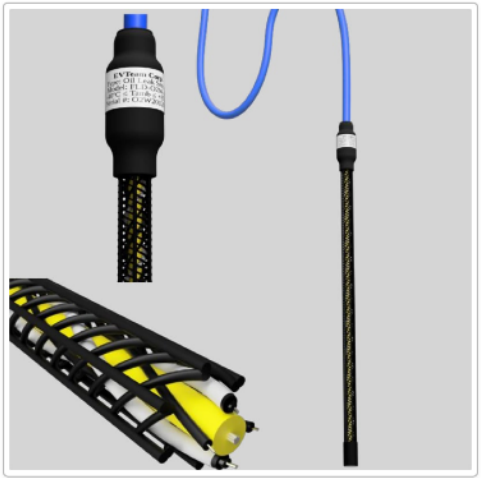
Naftosense

Phone: (614) 350-0911

FLD-O2W-SP

Sensing Probe for Oil-On-Water Leak Detection



FLD-O2W-SP is a fully encapsulated high-performance sensing probe designed for detecting leaks of refined products or crude oil floating on water surface in extreme environmental conditions. This probe can also be used as cost-efficient zero-false-alarms hydrocarbon fumes detector. UV/ozone resistant, it is specially engineered for reliable operation during long-term immersion in water and in icing conditions and is suitable for polar applications. The maximum length of sensor probe is limited to 48in (120 cm). The sensing probe can be wired to the acquisition module through an optional jumper cable with a maximum length of 1000ft (300m).

Advanced measurement techniques and data treatment algorithms are used by Naftosense acquisition modules to provide quick detection in a very wide temperature range. The sensor is reusable and easily detachable for cleaning.

FLD-O2W-SP probe is designed to be used exclusively with any model of Naftosense monitoring modules providing industry-standard analog outputs, dry contacts, or serial communication protocols for flexible integration with third-party monitoring panels or PLC.

FLD-O2W-SP is a passive simple element and is safe for installations in hazardous locations when connected to intrinsically safe field box or wired through an approved Zener barrier. Please contact Naftosense for additional information.

Features and Benefits

- Detects reliably heavy crude oil and refined products at very low temperatures
- Reusable after contamination
- Ability to report progressive leak alarms while remaining in the contaminated environment
- Fully passive - suitable for installations in hazardous locations
- Very wide operating temperatures range
- Able to detect quickly fumes/vapors diffused in the soil or above ground
- 10-year warranty

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Typical Applications

- Remote Oil & Gas facilities
- Monitoring of sumps, leak detection wells or retention ponds
- Leak detection in valve vaults within refineries, tank farms, etc.
- Monitoring of pipeline river crossings and tanker loading terminals
- Leak detection in downstream and fuel retail facilities (turrets)

Agency Approvals

Approved for use in:

- 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
- Tested by FM Approvals for compliance as per FM Class 3610

Technical Information Sensing Probe FLD-O2W-SP

Typical Detection Time of 1 mm Hydrocarbon Film at 68°F (20°C)	
Gasoline, Jet Fuel, Diesel	20 to 25 seconds
Light Crude Oil	45 to 60 seconds
Heavy Crude Oil, Dilbit	3 to 4 minutes
Motor Oil, Silicone Oil	8 to 10 minutes
Propane, Butane	25 to 30 seconds*

Technical Data	
Operating Life	Tested 30+ years at 104°F (40°C) - 10-year warranty
Compatibility	ALL Naftosense monitoring modules*
Maximum diameter	1.06 in (27 mm)

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Technical Data	
Ingress Rating	IP68 - suitable for outdoor/direct burial
Operating Temperature Range	-67°F to 212°F (-55°C to +100°C)
Maximum Length of Cable/ Probe	Sensor Probe: 4 ft (120 cm) Leader Cable (AWG22 mini): 10000 ft (300 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

*FLD-O2W-SP probe can be interfaced with various approved field boxes for wired or wireless installations in hazardous locations. For additional information please consult Naftosense or its authorized distributors.

Product Codes	
FLD-O2W-SP-6	Passive Hydrocarbon Sensor Probe of 6 in (15 cm) with 10 ft (3 m) lead cable
FLD-O2W-SP-10	Passive Hydrocarbon Sensor Probe of 10 in (25 cm) with 10 ft (3 m) lead cable
FLD-O2W-SP-24	Passive Hydrocarbon Sensor Probe of 24 in (60 cm) with 10 ft (3 m) lead cable
FLD-O2W-SP-48	Passive Hydrocarbon Sensor Probe of 4 ft (1.2 m) with 10 ft (3 m) lead cable