

FLD-PSP

High-Reliability Sensing Probe for Polar Solvents

The FLD-PSP is a fully encapsulated high-performance sensing probe designed for detecting leaks of alcohols such as ethanol. It is also sensitive to fossil and sustainable fuels, crude oil and polar/non-polar solvents.

Enclosed in a stainless-steel tubular casing, it is specially engineered for reliable operation during long-term immersion in water and in icing conditions, it is also suitable for high heat applications. The sensing probe can be wired to the acquisition module through an optional jumper cable with a maximum length of ~500 ft (150 m).



The sensor is reusable and easily detachable for cleaning after it becomes contaminated.

The FLD-PSP probe is designed to be used exclusively with acquisition modules or intrinsically safe field boxes offered by Naftosense providing industry-standard analog outputs, dry contacts or serial communication protocols for flexible integration with third-party monitoring panels or PLC.

FLD-PSP 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 to acquisition modules, alarm panels or other monitoring equipment installed in the safe area. Please contact Naftosense for additional information.

Features and Benefits

- Reliably detects alcohols and polar solvents
- Is sensitive to sustainable fuels and fossil hydrocarbons
- Reusable after contamination
- Dynamic tracking of the sensor contamination
- Fully passive – suitable for installations in hazardous locations
- Very wide operating temperatures range
- Optional floating system is available for outdoor sumps
- 10-year warranty

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Typical Applications

- Monitoring of sumps and leak detection wells
- Leak detection in valve vaults in refineries, tank farms, loading terminals etc.
- Monitoring of pipeline river crossings and marine terminals
- Leak detection in downstream retail facilities
- Asset integrity monitoring in distilleries, railway or truck loading/unloading areas, etc.
- Methanol detection in natural gas dehydrating installations

Agency Approvals

- Fully passive simple element approved for use in C1D1/ATEX Zone 0/IECEx Zone 0 locations

Technical Information

Typical Detection Time at Ambient Temperature	
20%-100% vol. alcohol in water	2 - 2.5 minutes
Gasoline and other hydrocarbons	30 seconds - 10 minutes **
Hydrocarbon vapors	3 to 4 minutes

** Depending on film thickness and other factors. For additional information on hydrocarbon detection, please consult Naftosense.

Technical Data	
Operating Life	30+ years at 40°F (40°C) (materials tested in natural aging conditions)
Compatibility	Approved Naftosense monitoring modules **
Maximum Diameter	.905" (23 mm)
Operating Temperature Range	40°F to 185°F (-40°C to 85°C)
Maximum Length	Sensor Probe: 48 in (120 cm) Leader Cable (AWG22 mini): 492 ft (150 m)

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Technical Data

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-HCSP probe can be interfaced with various approved acquisition modules for wired or wireless installations in hazardous locations. For additional information please consult Naftosense.

Product Codes

FLD-PSP-8	Passive Sensor Probe of 7.87" with 10 ft lead cable (20 cm with 3 m lead cable)