

PetroSense® DHP Digital Hydrocarbon Probe



The detection and measurement of petroleum hydrocarbons was historically achieved by sampling followed by field or lab analysis. With the advent of **PetroSense® DHP** probes, the world's first patented fiber optic chemical sensor built into a smart probe, it is now possible to measure ppm levels of petroleum hydrocarbons dissolved in water or as vapor *in situ*. That is to say, in the field and in real time.

PetroSense® DHP probes combine FCI's patented fiber optic chemical sensor (FOCS®) technology with digital electronics and an advanced microprocessor to make these products unique in the marketplace. **FOCS®** technology is based on modulation of the transmitted light intensity when the sensor is exposed to hydrocarbons. The **FOCS®** sensor is designed with a proprietary chemical coating which responds reversibly to increasing or decreasing levels of hydrocarbons.

The **DHP** probe is SDI-12 or RS-485 compatible, making it capable of being interfaced with most commercial data loggers, PLCs and samplers.

Applications

- Remediation Monitoring
- Hydrocarbon Breakthrough
- Wastewater
- Leak Detection
- Process Fluids
- Stormwater Monitoring



FCI ENVIRONMENTAL, INC.

FEATURES

- Detects Hydrocarbons Directly in Water and Vapor
- Detects Floating Liquid Product Instantaneously
- Fast Response
- Wide Dynamic Range
- 3rd Party Certified Equivalent to EPA Method 8020
- Intrinsically Safe – UL, CUL, KEMA ia
- Easy to Calibrate
- Stable
- Reliable

PERFORMANCE SPECIFICATIONS

	VAPOR	WATER
Operating Range	0-20,000 ppm a TPH	0-2,000 ppm a TPH
Lower Limit of Detection	<10 ppm as xylene	0.1 ppm as xylene
Hydrocarbons Detected	C6 and higher MW Petroleum hydrocarbons	C6 and higher MW Petroleum hydrocarbons
Accuracy/Precision	±15% of reading	±10% of reading
Response Time (initial)	12 seconds	12 seconds
Response Time to 95%	<1 minute	<1 minute
Operating Temperature	0° to 50°C	0° to 50°C
Trend Correlation with GC Data	95%	98%vs. EPA method 8020

HARDWARE SPECIFICATIONS

Supply Voltage	9-12 VDC
Data Input/Output**	SDI-12 or RS485
Baud Rate	1200
Idle State Current Consumption	700 µA typical, 1.5 mA maximum
Active State Current Consumption	6 mA typical, 15 mA maximum
Cable (with weatherproof connector)	Teflon jacketed, shielded
Cable Pull Strength	125 pounds
Cable Length	125 feet (38 meters), standard
Probe Length	10 inches (25 cm)
Probe Diameter	0.75 inch (19 mm)
Probe Weight	9 oz. (253 gms)
Options	Wireless Data Transfer Internet Data Access Solar Powered System



FCI ENVIRONMENTAL, INC.

VISIT OUR WEBSITE AT
www.petrosense.com

FCI Environmental, Inc. has developed a range of products and systems based on its patented fiber optic chemical sensor (FOCS®) technology which provide in-situ and continuous monitoring capabilities with real-time information obtained from sites. FCI Environmental, Inc. manufactures sensor systems for pipeline leak detection, aboveground storage tank monitoring, oil production, water quality monitoring and industrial wastewater compliance monitoring and control markets.

FOCS and PetroSense are FCI Environmental, Inc.

Manufactured under one of the following U.S. Patent Numbers: 4,824,206; 4,913,519; 4,846,548; 4,929,049; 5,026,139; 5,094,958; 5,109,422; 5,165,005; other Patents Pending.

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