

DHP-485

DIGITAL HYDROCARBON PROBE



Digital Hydrocarbon Probe

APPLICATIONS

- ∴ Salt Water Monitoring, Buoys, Water Intakes, Harbors, Marinas, Floats
- ∴ Remediation Monitoring
- ∴ Hydrocarbon Breakthrough
- ∴ Wastewater
- ∴ Leak Detection
- ∴ Process Fluids
- ∴ Stormwater Monitoring

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 total petroleum hydrocarbons (TPH) dissolved in water or as vapor *in-situ* - that is to say, in the field and in real time.

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
- ▶ Certified Intrinsically Safe* by UL
- ▶ Easy to Calibrate
- ▶ Stable
- ▶ Reliable

*When used with the FCI Environmental Intrinsic Safety Barrier.

PetroSense® is the leading source for TPH (total petroleum hydrocarbons) and BTEX portable and continuous monitoring systems.

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PetroSense **DHP probes** combine FCI's 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 RS-485 compatible making it capable of being interfaced with many commercial data loggers, PLCs and samplers.

PERFORMANCE	VAPOR	WATER (PHA-100)
Operating Range	0-20,000 ppm as TPH	0-2,000 ppm as 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 minutes
Operating Temperature Range	0°-50° C	0° - 50° C
Trend Correlation with GC data	95%	98% vs. EPA Method 8020

HARDWARE SPECIFICATIONS

Supply Voltage:	9-12 VDC
Data Input/Output:	RS485
Baud Rate:	1200
Idle State Current Consumption:	700 mA 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:	35 feet (10 meters)
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