

# PetroSense® CMS-4000 Continuous Monitoring System



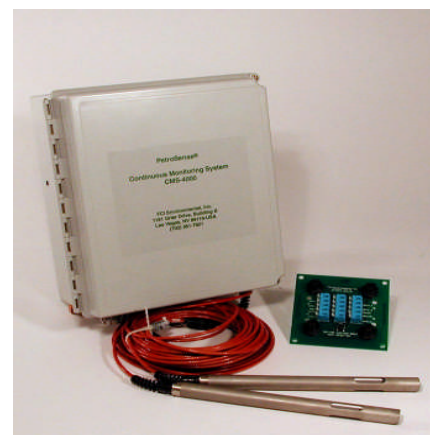
The CMS-4000 is a simple, reliable tool to measure petroleum hydrocarbons in water. With no moving parts and corrosion protected components, the system can be utilized in many different applications.

The CMS-4000 detects the presence of petroleum hydrocarbons in water using the patented Fiber Optic Chemical Sensor (FOCS®). The FOCS® probe takes advantage of the interaction between the light traveling through a fiber and a water solution containing petroleum hydrocarbons. As the concentration of hydrocarbons increases, the light scattered from the proprietary probe fiber increases in a quantitative relationship. The probe output is monitored by a controller that has 0-5 volt or 4-20 mA output and remote access capability. The system can monitor up to four probes and can be remotely accessed via terrestrial or wireless communications interfaces with a PC.

The probe is intrinsically safe and designed to be remotely mounted in hazardous locations.

## Applications

- Process water
- Waste water
- Oil field produced water
- Separation vessel effluent
- Storm water run-off
- Bilge and ballast water
- Groundwater remediation monitoring
- Carbon filter bed breakthrough
- Heat exchanger leak detection



**FCI ENVIRONMENTAL, INC.**

## Specifications

Enclosure	NEMA 4X
Analog Output	0-5 Volts, 4-20 mA (optional)
Communications	RS-232 and/or modem
Physical Dimensions	
Probe Diameter	0.75" (19 mm)
Probe Length	10" (25.5 cm)
Probe Weight	9 oz. (253 gm)
Enclosure	10.5" x 9.0" x 6.5'
Enclosure Wt.	9 lbs.
Environmental Temperature	-20°C to +50°C
Sample Temperature	0°C to +50°C



**Digital Hydrocarbon Probe**

## Performance Specifications (in Water)

Operating Range	0-2,000 ppm as TPH
Lower Detection Limit	0.1 ppm as xylene
Hydrocarbons Detected	C6 and higher MW petroleum hydrocarbons
Accuracy/Precision	±10% of reading
Response Time (initial)	12 seconds
Response Time (to 95%)	<5 minutes
Operating Temperature Range	0° to 50°C
Trend Correlation with GC data	98% vs. EPA Method 8020

## System Requirements

Power	110-220 VAC 50/60 Hz 0.5 amp
Mounting	Wall or panel
Rinse Water	5 gpm @ 50 psig minimum

VISIT OUR WEBSITE AT  
[www.petrosense.com](http://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.

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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