

PETROSENTRY SYSTEM

In recent years, the **PetroSense®** hydrocarbon monitoring systems have become the technology of choice for *in situ* monitoring of process water, produced water and waste water applications. In industrial installations, on shipboard, and in municipal installations, they have the ability to:

- ▶ **Detect** and quantify **total petroleum hydrocarbons** (TPH) presence in both vapor and dissolved form
- ▶ **Remotely** access and control the system and its settings, including alarm levels and sample timing
- ▶ **Operate** for extended periods without operator attention
- ▶ **Interface** with most commercial loggers, PLCs and samplers

The detection and measurement of total 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 TPH dissolved in water or as vapor *in-situ*. That is to say, in the field and in real time. Typical applications for PetroSentry are hydrocarbon breakthrough monitoring, leak detection at aboveground and underground storage tank sites and pipelines, as well as monitoring, remediation, wastewater, process water, storm water, aquifers, rivers and harbors.

CMS-4000

CONTINUOUS MONITORING SYSTEM



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

The **CMS-4000** logger with the Fiber Optic Chemical Sensor (FOCS®) detects the presence of petroleum hydrocarbons in water. 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 (4) probes. The probe is intrinsically safe* and designed to be remotely mounted in hazardous locations.

*When used with the FCI Environmental Intrinsic Safety Barrier.

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CMS-100 WEB LOGGER CONTINUOUS MONITORING SYSTEM



The **CMS-100 System** has the capability of connecting up to twenty (20) **DHP-485 hydrocarbons sensors**. The data transmitted from the sensors is stored both in the logger and on our propriety **PetroSense** Website. The **CMS-100** will display alarms on the web. It also has the capacity to send alarm notices via e-mail, up to five (5) addresses.

Below is a snapshot of our Web page displaying the graphics as well as up to 72 hours of the most recent data collected. *Selecting the data you want to be displayed can customize the charts.* The chart below is displaying the concentration levels in ppm for three DHP-485 hydrocarbon sensors. The new **PetroSense CMS-100 Web-based Data Logger** provides real time monitoring via the Web.

DHP DIGITAL HYDROCARBON PROBE



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 **RS-485** compatible, making it capable of being interfaced with most commercial data loggers, PLCs and samplers.