

ppm Oil in Water Monitor

On-line monitoring for ppm petroleum oil in industrial filtered water and cooling water

The HydroSense 3410 offers a high accuracy approach to monitoring low concentrations of free and soluble oils in water. Combining many unique design features into a compact package makes this an ideal solution to monitoring for oil contamination in your water system.

- Fluorescence technology is selective to ppm levels of petroleum hydrocarbons by targeting their aromatic fraction
- Continuous on-line monitoring without chemicals or lag time
- Internal ultrasonic pad helps keep the flow-through sample cell clean to reduce contamination error



HydroSense 3410

The HydroSense 3410 uses a UV fluorescence technique to target the aromatic component of the oil contamination. Through a site calibration this aromatic tag is able to provide an indication relative to total oil.

A slip stream approach directs a continuous sample flow through the HydroSense unit and back into the process stream. While it passes through the sample cell, filtered UV light is targeted in the water. The soluble and emulsified oils in the water will excite from this light energy and fluoresce light energy back out of the water at a signature wavelength. The intensity of light energy at this wavelength is measured to provide an indication of the ppm concentration.

■ Features and Benefits

- ultrasonic disc generates a continuous cleaning action within the sample cell to reduce maintenance frequency
- compensation for temperature and lamp deterioration minimizes re-calibration requirements
- long life lamp
- desiccant chamber keeps electronics dry in humid conditions
- continuous display updates every one second
- no consumables or chemical used
- sample flow returns to the process
- sample cell can be exchanged with prepared samples for easy testing and calibration
- no tools necessary for routine maintenance

■ Technical Specifications - Control Unit

Operating Temperature	10°C to 50°C
Power Input	24 vdc or 110 vac or 220 vac
Alarm Relays	2 x 2 amp, SPDT, dry
Output	4-20 mA or RS-485
Standards	UL, CSA, CE
Enclosure	Type 4X polycarbonate, IP65
Range	0-100 ppm
Display Resolution	0.1 ppm
Instrument Accuracy	+/- 0.1 ppm
Process Accuracy	+/- 1.0 ppm under stable conditions

■ Performance

The performance is based on the site calibration to a known hydrocarbon concentration in stable background water. Changes in hydrocarbon make-up and background stability may affect the output. Through a simple calibration, this unit correlates well with laboratory ISO and EPA methods.



The flow-through sample cell is easily removed to insert a test standard.