

HydroSense 3420 ppm Oil in Water Monitor



On-line alarm for oil presence in filtered effluent and cooling water

The HydroSense 3420 offers a low cost approach to monitoring ppm concentrations of emulsified free oils in clean water. Combining many unique design features into a compact package makes this an ideal solution to monitoring for oil leaks in your water system.

- Light scatter technology responds to petroleum, synthetic and vegetable oils
- 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 3420

The HydroSense 3420 uses a light scatter technique to respond to oil contamination in the water.

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 a controlled light source is directed into the water. The emulsified oils in the water will scatter the light toward the light sensors placed strategically around the cell. The intensity of light energy 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 (optional to 90°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	0-100ppm, minimum alarm setpoint 3 ppm
Display Resolution	0.1 ppm
Instrument Accuracy	+/- 0.1 ppm
Process Accuracy	+/- 1.0 ppm under stable conditions
Oil Type	All free and non-dissolved oils, > 2 micron

Performance

The performance is based on the site calibration to a known oil concentration in stable background water. Changes in oil 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.



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