

Oil Sentry®



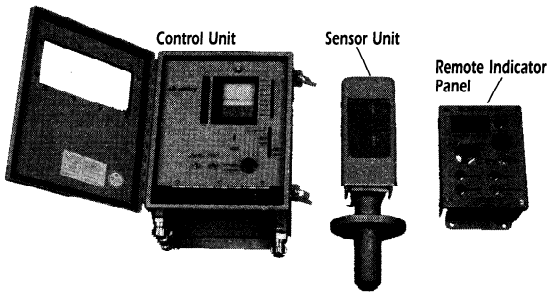
Oil-in-Water Monitor Model OS-100

GENERAL DESCRIPTION AND OPERATION

The Oil Sentry® uses a much-tested electro-optical sensing system to measure the concentration of oil in water. A 3ml sample is drawn by a piston into a small glass chamber. A tiny light source shines through one wall of the chamber to two photodetectors on the other side. Any oil suspended in the sample absorbs light. The decrease in light transmission is measured by one photodetector, and the forward scattered light preferentially induced by oil is measured by the other photodetector, which is shielded from directly viewing the light source by an occluding rod. An electronic circuit algebraically combines the intensity on the two photodetectors to yield a measure of the concentration of oil. The dual approach minimizes interference from suspended solids or air bubbles. Water temperature and oil composition do not affect the reading.

Installation is easy and inexpensive. The sampling end of the sensor is inserted 6 to 12 mm into the stream to be sampled. The sensor is held in place by a 150lb Navy or optional ANSI 4-hole flange

Inventive Systems Inc.



OilSentry®

FEATURES:

SELF CLEANING: Optical surface is cleaned each time it samples and expels water. Reduces maintenance and eliminates errors from fouled surfaces.

COMPLETELY AUTOMATIC OPERATION: Requires no attention from operators.

EASILY INSTALLED: No troublesome tubing to connect.

RELIABLE ON-LINE SAMPLING: Provides real-time results every 8 seconds without distortion from tubing to off-line site.

STANDARD FEATURES: Built in Strip Chart, LED meter, 4-20mA output, 10 amp relay and Remote Status Indicator.

OPTIONS: The OS-100 is available in a High Temperature (240F) and a NEMA4 Explosion Proof (Class 1, Division 1, Group D) versions for the Sensor Unit.

RUGGED DESIGN: Marine grade 316 stainless steel, bronze and aluminum.

LIGHTWEIGHT AND COMPACT: Sensor Unit weighs less than 7 kg and Control Unit less than 10 kg.

APPROVALS: U.S. Coast Guard 162.050/9002/1, ABS 95-NN7502-X and IMO Resolution MEPC.60 (33).

SPECIFICATIONS:

PRINCIPLE:

Measurement of oil content by transmission and forward scattering of light.

ENVIRONMENTAL:

Temperature: Less than 70C (116C for HT Model).
Humidity: Less than 90% noncondensing.
Vibration: Greater than IMO requirements.
Roll, Pitch & Yaw: No restriction.
Pressure: 0-50 psi

POWER: 115VAC, 50/60 Hz or 220VAC, 50/60 Hz.

MEASURING FREQUENCY: 7 times per minute.

MEASURING REPEATABILITY: ± 2 ppm at 15 ppm; ± 10 ppm at 100 ppm.

MEASURING RANGE: 2 to 150 ppm.

ALARM OUTPUT: SPST, 10 amp, 220VAC relay.

OTHER OUTPUTS: 0 to 2 Volts DC for optional remote PPM digital readout and 4-20 mA.

SIZE AND WEIGHT: Sensor Unit is 40x15x18 cm at 6.4 kg, and Control Unit is 33x27x22 cm at 9.6 kg.

* OilSentry® is a registered trademark of Inventive Systems Inc.

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P.O. Box 220, 21797-C, North Coral Drive

Lexington Park, Maryland 20653, USA

Tel. (301) 863 - 5153

Fax (301) 863 - 7583

www.oilinwater.org ■ email: isi@oilinwater.org

