# MODEL OIW80 – Oil in Water Sensor

# Intelligent Sensor Design with digital communication for continuous online measurement of Oil in Water

For use with the ECD Universal T80 Transmitter

## **APPLICATION FIELDS**

- Drinking water
- Industrial effluent monitoring
- Ocean, River, Lake Studies
- River and surface water
- Waste water

### **ADVANTAGES / FEATURES**

Sensor Design with Digital Communication Calibration data is stored in the sensor allowing field installation of a pre-calibrated sensor, Detachable cable simplifies the installation of pre-calibrated sensors.

#### Multiple Measuring Ranges

The sensor can be easily configured for various ranges of up to 30 ppm

#### Advanced Wiper Design

Direct insertion Oil in Water sensors must have an advanced automated wipe system to avoid continuous manual maintenance cleanings

#### Easy Calibration

One or two point calibration that can be easily done in the field if needed.





Sensor shown with oil film adhering to sensor, but optics are kept clean with automatic wiper function



#### Fluorescence Sensing Technology

Utilizes the state-of-the-art Fluorescence technology to measure oil in water, which is typically proportional to its concentration

#### **Rugged Sensor Material**

Sensor housing construction utilizing strong corrosion resistant Stainless Steel Material or optional Titanium

Factory tested, ready for installation Just connect the transmitter or controller and sensor is fully operational.

#### Directly Interfaces with Transmitters and Controllers

The OIW80 works with the ECD T80 Universal Transmitter, with the LQ800 Multi-Channel Controller or directly with a control system/PLC via the sensor serial communication.

#### ABOUT OIL in WATER FLUORESCENCE TECHNOLOGY

The measuring principle is based on fluorescence: when lighted at a specific wavelength (excitation), some chemicals re-emit light (emission) at a longer wavelength. Very few chemicals are fluorescent giving a highly selective measurement.



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#### **TECHNICAL SPECIFICATIONS**

| Measured Parameter                                 | Oil in Water  |
|--|---|
| Measuring Principle                                | Fluorescence  |
| Measuring Range                                    | 0 to 30 ppm (mg/L)  |
| Flow rate in fast loop reservoir or ECD Flow Cells | 80-500 mL/minute  |
| Operating Temperature                              | 41 to 113°F (5 to 45°C)   |
| Dimensions   | 5.8 in H x 1.98 in Dia / 147 mm H x 50.2 mm Dia                               |
| Weight   | 1.4 lbs / 0.6 kg  |
| Power supply                                       | Internal from T80 Transmitter or LQ800 Controller<br>Direct power 8 to 24 VDC |
| Outputs / Digital Communication                    | Modbus RTU RS485  |
| Installation                                       | Flow Cell, Fast Loop Reservoir, or Direct Immersion<br>Standpipe              |
| Ingress Protection                                 | IP68  |



ECD ANALYZERS, LLC 1500 N Kellogg Dr Anaheim, CA 92807 USA - Phone: +1-714-695-0051 Fax: +1-714-695-0057 Email: <u>support@ECDanalyzers.com</u> <u>www.ECDanalyzers.com</u>