

TD-2500

ULTRASONIC OIL IN WATER MONITOR

High Concentration Detection

The TD-2500 combines ultrasonics and a time-tested insertion probe to offer the ultimate in early detection of high concentrations, or slugs, of oil in waste water.

Ultrasonic Technology

Ultrasonic technology measures oil at high concentrations, typically seen after oil/water separation, is sensitive to droplets, solids or gas bubbles and is easier to maintain than optical technologies.

Easy Process Insertion

The TD-2500's simplified design allows for easy installation, at any point in the water treatment process. Its fast response time makes the TD-2500 ideal for improving water treatment efficiency and tuning the chemical injection rate.



OPERATION BENEFITS

- Detect high oil concentration slugs before separators
- Optimize wastewater process control
- Reduce operating cost and environmental discharge issues

KEY APPLICATIONS

- Oil & water separators feed monitor
- Storage tank dewatering control
- Desalter water effluent monitoring
- Disposal well monitoring

INSERTION PROCESS MONITOR

- Measures oil in water (10 ppm–30,000 ppm)
- Rated to high temperatures and pressure
- Customized materials of construction
- Zero downtime sensor removal—process insertion with ball valve
- No moving parts, low maintenance



Benchmark
Measurement Solutions

Formerly Turner Designs Hydrocarbon Instruments

#1 Worldwide
for process and environmental
oil in water monitors

SPECIFICATIONS

Accuracy	± 4% F.S.
Repeatability	± 4% F.S.
Sensitivity	± 2% F.S.
Response Time	T90: 1 second
Method / Technology	Acoustic back-scatter, 5 or 15 MHz [application-specific]
Range / Parameters	10 ppm–30,000 ppm (3%)

SENSOR

Pressure	17.9 bar @ 25°C (260 psi @ 77°C) — insertable
Temperature	0–150 °C [32–302 °F]
Materials of Construction	Stainless steel, Hastelloy, Monel, Teflon; PEEK detector with Kalrez O-rings
Process Connections	Ball-valve mounted or flange mounted
Pipe Diameter	≥ 3" [90 mm], adapter available for smaller pipe diameters
Units	ppm, mg/l
Cable	≤ 100 m

ENVIRONMENT

Temperature / Humidity	0–45 °C [32–113 °F], 0 to 95% relative humidity [non-condensing]
Installation	Indoors in suitable enclosure; outside under sun shield
Dimensions / Weight	350 x 300 x 173 mm [13.8 x 11.8 x 6.8 inches] / 5.76 kg. [12.7 lbs.]
Enclosure	Stainless steel or fiberglass, IP 65, NEMA 4X

UTILITIES

Power / Consumption	90–265 VAC, 15 Watts
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COMMUNICATIONS

Analog Output	4-20 mA outputs [self-powered]
Relays	4
Human Machine Interface	Dot-matrix with local touch pad

CERTIFICATIONS

CEC/NEC	Class I Div. 2 groups ABCD T3 [purged]
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