



ACE INSTRUMENTATION

TD-4100XD

HYDROCARBONS IN WATER



The TD 4100XDC is a "Closed Cell" version of the rugged, world industry standard TD-4100 XD Oil in Water Monitor. It was designed for normally clean water applications or dirty water applications where fouling can be controlled by chemical injection or optional on-board cleaning systems. It utilizes a clear tube flow cell to contain the sample water at pressure to prevent oxygen contamination in steam systems and to return the sample to the process at pressure. It uses a unique internal Cell Condition Monitor to alert operations of the need for cleaning or to trigger the optional on-board cleaning system. As with all Turner monitors it includes a field validation method.

- Fluorescence measurement technology with lowest detection limits available.
- Minimal sample conditioning plumbing hardware reduces cost.
- Easy calibration with long term stability.
- Low maintenance.
- User friendly.
- Ruggedized for harsh environments, internationally certified for hazardous areas.
- Custom Configurations, and wetted materials.



Certificate Number: 46016

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SPECIFICATIONS

Applications	Steam Condensate, Boiler Feed, Normally Clean Water, Cooling Water, Intake Protection, and Dirty Water with Chemical cleaning if needed
Hydrocarbons	Fuel Oil, Crude Oil, Other Fuels and Lubricating Oils, Phenol, Styrene, Most Heat Transfer Fluids, Aromatic Chemicals, BTEX
Detection Range	Fuel Oil, Crude Oil 5 ppb – 500 ppm in steam condensate
Low Detection Limit	Most Other Hydrocarbons <50 ppb
Dimensions	Wall Mounting: 25" H x 44" W x 12.5" D (635 mm x 1118 mm x 318 mm) Floor Mounting: 68.4" H x 25.7" W x 25.7" D (1737 mm x 653 mm x 653 mm)
Weight	Floor Mount: 173 lbs (78.5 kg)
Local Display	Yes, PPM, PPB, or Raw Signal
Controls	External 316 SS Touch Pad
Power Requirement	90 - 240 VAC, 2.2A, (24 VDC Optional) (Contact factory for in-rush current)
Plumbing Requirements	Feed: 3/8" or 1/2" Tube, Return: 3/8" or 1/2" Tube
Sample Pressure	<250 psig (1724 kPag) (For higher pressures consult factory)
Sample Temperature	60°C, (140°F) (For higher temperatures consult factory)
Required Inst. Air Supply General Purpose	10.20 SCFH (0.28-0.57 m3/hr)
Required Inst. Air Supply Zone I, Zone II	22 SCFH (0.62 m3/hr)
Ambient Operating Temperature	0° - 49°C (32° - 121°F) (Heater or Vortex Cooler Optional)
Flow Cell Characteristic	Closed Tube with Internal Cell Condition Monitor
Pressurized Sample Return	Yes
Operational Principle	Fluorescence with application specific optical configurations
Calibration Stability	+/- 10% over 6 Months
Response Time	3 seconds full scale spike change, continuous reading
Calibration	Blank / standard addition or correlation to standard methods
Field Validation	Via factory supplied water soluble dye or site prepared standard with hydrocarbons
Reagents	For dirty water applications, a cleaning solution may be required
Alarms	4: Early Warning / High Alarm / Cell Condition / Cleaning In Process
Alarm Contacts	Dry Contact, 5-100 VDC at 500-100 mA and 130 VAC, 50/60 Hz, 76 mA maximum (Optional high current AC and DC relays)
Outputs	4-20 mA, externally powered, 500 ohm impedance
Communication Protocols	Optional: HART, ModBus
Diagnostics	Self Diagnostics, internal failure linked to alarm, Cell Condition
Security	Password protects software, Lockable Enclosure 316 Stainless Steel
IP Rating	IP 56, NEMA 4X (Standard) IP66 for ATEX Zone 1 and NFPA Class 1, Division 1 configurations (Optional)
Maintenance	Calibration check, clean flow cell
Cleaning Chemicals	Detergents and/or Dilute Hydrochloric Acid
Explosion Proof Options	Optional ATEX Zone 1; ATEX Zone 2; NFPA Class 1, Division 1; and NFPA Class 1, Division 2
Sample Pump	Optional
Semi Automatic Cleaning System	Optional
Data Logger	Optional
ISO Certified	9001: 2008 Quality System



#1 Worldwide
For Process & Environmental
Oil In Water Monitors



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