

# TD-3100 LAB FLUOROMETER FOR HYDROCARBONS IN WATER

**The TD-3100 is a low cost benchtop instrument developed to provide an alternative to industry standard oil and grease methods. Measure samples directly (non-extraction) or with solvent extraction methods.**

## *Features*

- Simple set-up and calibration
- Low cost per sample analysis
- Less than 10 seconds per sample
- Calibrated methods for quantitative analysis
- Non-calibration method for relative measurements
- Results correlate to standard methods
- Quick-change optics for multiple applications
- Detection limits range from ppb to ppm depending on application
- Reference solutions available for quick performance checks
- Sample compartment accommodates 25 x 150 mm round, 13 x 100 mm round or 10 x 10 mm square cuvettes



## *Target Hydrocarbons*

- Crude Oil
- BTEX
- Phenol
- Styrene
- Gasoline
- Diesel
- Jet Fuel
- Fuel Oils
- Kerosene
- Heat Transfer Fluids
- Transformer Oils
- Lube Oils
- Hydraulic Oils



The TD-3100 measures the fluorescence of aromatic hydrocarbon compounds in water. Fluorescence occurs when a molecule absorbs light energy of one specific wavelength and emits light energy of a longer wavelength. Fluorescent compounds each have a unique signature, and these compounds can be displayed as actual concentration.



*Applications include:*

- Heat Exchanger Leak Detection
- Produced Water
- Industrial Wastewater
- Ground Water
- Storm Water
- Bilge Water
- Soil Extract Analysis

## TD-3100 SPECIFICATIONS

<b>Dimensions:</b>	9.25"W x 11.0"D x 8.25"H (23.5 cm W x 28.0 cm D x 21.0 cm H)
<b>Weight:</b>	13 lbs. (5.9 kg)
<b>Power Requirements:</b>	External power supply, 100 – 240 VAC, max. 30 watts
<b>Detection Limits:</b>	Ranges from ppb to ppm depending on application
<b>Operating Temperature:</b>	60 – 95° F (15 – 36° C)
<b>Display:</b>	16 x 2 character LCD; 3.86" x .86" (9.8 cm x 2.18 cm)
<b>Keypad:</b>	4 x 5 keys; 3" x 2.7" (7.62 cm x 6.86 cm)
<b>Data Output:</b>	100% ASCII format through a 9-pin RS-232 serial cable at 9600 baud.
<b>Sample Adapters:</b>	Sample chamber with 25 mm adapter accommodates 25 x 150 mm test tubes; Includes adapter for 13 x 100 mm test tubes; Optional adapter for 10 x 10 x 45 mm square cuvettes; Optional range extending adapter with variable apertures for 10 x 10 x 45 mm square cuvettes;
<b>Filter Cylinder:</b>	Accommodates 8, 1" round filters (4 excitation, 4 emission)
<b>Software:</b>	Menu-driven, microprocessor-controlled
<b>Detector:</b>	Factory-installed photomultiplier tube. Standard: 300 - 650 nm Optional red sensitive: 185 - 870 nm.
<b>Lamp:</b>	Quartz halogen lamp (20 watts; lamp life = 2000 hours) or low pressure mercury vapor lamp (4 watts; lamp life = 8000 hours)
<b>Printer:</b>	Optional Epson™ printer; 10.8" W x 14.4" D x 5.2" H (27 cm W x 36 cm D x 13 cm H) or Star Printer; 7.9" W x 8.0" D x 3.8" H (19.75 cm W x 20 cm D x 9.5 cm H)
<b>Material:</b>	UL-approved polyurethane; Sheet metal back and base
<b>Readout:</b>	Direct concentration or raw fluorescence
<b>Calibration:</b>	Multi-point calibration for direct concentration measurement or single point raw fluorescence calibration
<b>Blank:</b>	Reads and subtracts Blank
<b>Discrete Sample Averaging:</b>	Sample readings can be averaged to improve accuracy (7-second delay, 12-second signal averaging, 5-second display readout)
<b>Warranty:</b>	One-year warranty
<b>Approvals:</b>	CE, TUV, and UL