

# Trimeter<sup>TM</sup>

*Eureka's new Trimeter is the simple, low cost solution when you need quality data, but fewer sensors.*

## Features:

- » Choose any Eureka sensor and add Depth and/or Temperature
- » Use as a spot checker/profiler, self-powered logger, or with telemetry
- » LED indicators for sonde status (power, logging, communication)
- » Uses off the shelf "D" replaceable batteries
- » Compact, rugged design
- » Works with all Eureka's display options, such as the Amphibian2 (Windows Mobile), PC/Laptop (Windows), or Leapfrog Bluetooth (Android, BT Enabled Windows device)

The new Trimeter incorporates the field-proven electronics of Eureka's Manta Multiprobe and its user interface, with a smaller, lighter instrument body. Select temperature, and/or depth (vented, non-vented), along with any one of Eureka's sensors (excluding ISE's). For instance, choose Chlorophyll plus Temperature and Depth, or just Chlorophyll. The Trimeter gives you maximum field performance at minimal cost.

## Available Sensors:

- Temperature
  - Depth
  - Conductivity/Salinity/TDS
  - pH/ORP
  - Dissolved Oxygen (optical sensor)
  - Turbidity
  - Chlorophyll a
  - Blue Green Algae
  - Rhodamine
  - Crude Oil
  - Refined Oil
  - TDG
- And more!



## Physical

- » Length: 12" (without battery pack)  
22" (with battery pack)
- » OD: 1.85"
- » Weight: 0.8lb, 1.8 lb with internal battery pack.
- » Durable Delrin® housing

## Connectivity Options

- » Underwater cable via marine connector
- » Bluetooth connectivity via Leapfrog Bluetooth Battery

## Battery

- » Holds three 1.5 VDC "D" size replaceable alkaline batteries
- » Logging time dependent on sensors, logging interval and temperature

## Data Memory

- » 4 Mbytes for logged data, > 1,000,000 readings

## Accessories

- » Underwater cables 3 – 200 meters
- » Battery pack for self-powered logging
- » Leapfrog Bluetooth
- » Carry Case
- » Flow Cell
- » Anti-fouling Sensor Guard

## Warranty

- » 3 year limited warranty on sonde (covers all components, including sensors)



## Sensor Specifications

Turner Designs Specifications					
parameter		range	resolution	accuracy	comments
temperature	temperature	-5 to 50 C	0.01	0.1	never needs calibration
pH/ORP	pH	0 to 14 units	0.01	0.1 within 10 C of calibration, 0.2 otherwise	refillable reference electrode; corrected for temperature; typical sensor life > 4 years
	ORP	-999 to 999 mV	1	20 mV	platinum ORP sensor is combined with pH sensor
turbidity	turbidity	0 to 40 FNU	4 digits with maximum of two decimals	2% of reading or 0.2	compensated for temperature; filtered for non-turbidity spikes; includes wiper to clean the optics
		40-400 FNU		2% of reading or 0.2	
		400-5000 FNU		2% of range	
optical dissolved oxygen	concentration	0 to 20 mg/l	0.01	0.1	compensated for temperature and salinity; EPA approved "lifetime" luminescence method; typical sensor cap life > 4 years
		20 to 30 mg/l	0.01	0.15	
		30 to 50 mg/l	0.1	5%	
	% saturation	0 to 500% saturation	0.1%	corresponds with the accuracy of the concentration reading	
conductivity	specific conductance, µS/cm	0 to 5000 µS/cm	4 digits with maximum of one decimal	±0.5% of reading ±0.001	corrected for temperature; four easy-to-clean graphite electrodes; optional sensor provides ±0.5% of reading accuracy to 100 mS/cm.
	specific conductance, mS/cm	0 to 10 mS/cm		±1% of reading ±0.001	
		10 to 100 mS/cm		1% of reading	
		100 to 275 mS/cm		2% of reading	
	salinity	0 to 70 PSS	0.01	0.2	calculated from specific conductance; PSS = Practical Salinity Scale which is roughly equivalent to ppt
	total dissolved solids (TDS)	0 to 65 g/l	0.1	5% of reading	calculated from specific conductance
pressure	depth	0 to 25 m	0.01	0.05	compensated for temperature and salinity; 0.05 m out of 25 m is 2" out of 100 feet; 0.4 m out of 200 m is a football length out of two football fields
		0 to 200 m		0.4	
	vented depth (level)	0 to 10 m	0.001	0.003m	compensated for temp, salinity, barometric pressure
	barometric pressure	400 to 900 mm Hg	0.1	1.5	included with depth sensor
	total dissolved gas (TDG)	400 to 1,400 mm Hg	0.1	1	compensated for temperature; maximum depth 15m
fluorometers	chlorophyll a - blue	> 500 µg/l	6 digits with maximum of two decimals	linearity of 0.99R <sup>2</sup>	highest-quality Turner Designs fluorometric sensors; fluorometers often require non-trivial calibration; custom optics available upon request
	chlorophyll a - red	0 to 500µg/l			
	rhodamine dye	0 to 1000 ppb			
	Phycocyanin (freshwater BGA)	0 to 40,000 ppb			
	Phycocerythrin (marine BGA)	0 to 750 ppb			
	CDOM/FDOM	0 to 1250 or 0 to 5000 ppb			
	CDOM/FDOM custom	0 to 1250 or 0 to 5000 ppb			
	optical brighteners	0 to 15,000 ppb			
	tryptophan	0 to 20,000 ppb			
	fluorescein dye	0 to 500 ppb			
refined oil	0 to 10,000pb				
crude oil	0 to 1500 ppb				

## Warranty

Trimeter	3 years	Underwater cables	3 years
Amphibian2 Handheld	2 years	Leapfrog Bluetooth Module	3 years (battery: 90 days)
Optical DO (optical) Replacement Cap	3 years		

FOR BEST ACCURACY, ALWAYS CALIBRATE NEAR THE ANTICIPATED FIELD READINGS, AND NEAR THE TEMPERATURE OF THE ANTICIPATED FIELD READINGS.

pH sensor included in 3 year warranty.

Specifications indicate typical performance and are subject to change. Please see [www.waterprobes.com](http://www.waterprobes.com) for up to date specifications.