Trimeter™

Eureka's most compact multiprobe

The Trimeter incorporates the field-proven electronics of Eureka's premier Manta+ multiprobe, with a smaller, light-weight instrument body.

Select any one of Eureka's water quality sensors (excluding ISE's), and add temperature and/or depth (vented or non-vented) sensors. The Trimeter is an excellent choice when you need a self-powered probe for autonomous Turbidity logging. For example, choose wipered Turbidity with temperature and depth, or Turbidity and temperature sensors only.

Trimeters are also ideal for use in dye-trace studies, equipped with Rhodamine, Fluorescein, or other custom dye sensors from Eureka. Use the Trimeter with Eureka's mantaLink app for iOS or Android, or Windows for the PC.

- Choose one Eureka water quality sensor, plus add Temperature and/or Depth
- For spot checking, logging, or connection to data stations
- LED diagnostic status indicators
- Optional battery pack for long-life logging power
- Robust marine connector
- Small, rugged, light-weight design
- Compatible with all Eureka software apps, Windows, iOS and Android
- Excellent choice for autonomous Turbidity logging

Physical

- **Length:** 14" (without battery pack) 24" (with battery pack)
- **OD:** 1.95"
- **Weight:** 1.4 lb, 1.8 lb with optional battery pack

Connectivity Options

- Underwater cable or data cable via marine connector
- Bluetooth connectivity via mantaMobile device

Battery

- Holds three 1.5 VDC "D" size replaceable alkaline batteries
- Logging time dependent on number of 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
- mantaMobile Bluetooth
- Soft and hard carry cases
- Flow cell
- Anti-fouling sensor guard

Warranty

- 3 year limited warranty covers all components, including sensors

eureka™ water probes

Sensor Specifications

Sensor	Parameter	Range & Units	Resolution	Accuracy	Comments
temperature	temperature	-5 to 50 C	0.01	±0.1	calibration not required
pH/ORP	pH	0 to 14 units	0.01	±0.1 within 10 C of calibration; or 0.2 otherwise	refillable reference electrode; corrected for temperature; typical sensor life >6 years; optional ORP sensor is combined with pH sensor
	ORP	-999 to 999 mV	0.1	±20 mV	
conductivity	specific conductance, µS/cm	0 to 5000 µS/cm	0.1	±0.5% of reading or ±1 w.i.g.	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 100 mS/cm	0.001	±1% of reading ±0.001	
		100 to 275 mS/cm	0.001	±2% of reading	
	salinity	0 to 70 PSU	0.01	±2% of reading	calculated from conductivity and temperature, PSU is equivalent to ppt
	total dissolved solids (TDS)	0 to 65 g/l	0.1	±5% of reading	
dissolved oxygen (optical sensor)	concentration	0 to 20 mg/l	0.01	±0.1	compensated for temperature and salinity; EPA approved "lifetime" luminescence method; typical sensor cap life > 6 years
		20 to 30 mg/l	0.01	±0.15	
		30 to 50 mg/l	0.01	±5% of reading	
	% saturation	0 to 500% saturation	0.1	corresponds with the accuracy of the concentration reading	
turbidity	turbidity	0 to 1000 FNU	0.01	±0.3 FNU or ±2% of reading w.i.g.	filtered for non-turbidity spikes; includes wiper to clean the optics; FNU and NTU are interchangeable
		1000 to 4000 FNU		±4% of reading	
pressure	depth	0 to 25 m	0.01	±0.05	compensated for temperature and salinity
		0 to 200 m		±0.4	
	vented depth	0 to 10 m	0.001	±0.003	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	0 to 100 µg/l	0.01	linearity of 0.99 R^2	highest-quality fluorometric sensors; fluorometers often require non-trivial calibration; custom optics available upon request
	chlorophyll a - red	0 to 500 µg/l			
	rhodamine dye	0 to 200 ppb			
	Phycocyanin (freshwater BGA)	0 to 4500 ppb			
	Phycoerythrin (marine BGA)	0 to 700 ppb			
	CDOM/FDOM	0 to 500 ppb			
	optical brightener	0 to 300 ppb			
	tryptophan	0 to 5000 ppb			
	fluorescein dye	0 to 150 ppb			
	PTSA	0 to 650 ppb			
	refined oil	0 to 20 ppm			
	crude oil	0 to 300 ppb			

For best accuracy, always calibrate near the anticipated field readings, and near the temperature of the anticipated field readings.

eureka water probes

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