

eurekaTM
water probes

Multiprobes built for the field technicianTM



 manta+TM



Trimeter

temperature
depth
+ any other sensor

20

Temp
pH
conductivity
DO (optical)

25

Temp
pH
conductivity
Turbidity (or any medium sensor)

30

Temp
pH
conductivity
DO (optical)
Turbidity (or any medium sensor)

35

small sensor options

sodium
ammonium
nitrate
chloride
TDG



40

temp
pH
conductivity
optical DO
universal wiper
turbidity

standard on 35/40





Rugged

- Anti-corrosive housings and sensors
- Industry leading 3 year warranty
- Anti-fouling options

Intelligent

- Sensor health indicator
- Automatic recording of internal calibration data
- LED status indicator

Simple

- One touch and automatic data capture
- Fast easy calibration
- Intuitive software

medium sensor options

PAR
chlorophyll
blue-green algae
rhodamine
crude oil
refined oil
CDOM/FDOM
fluorescein dye
optical brighteners
tryptophan

*Depth and ORP (must have pH)
optional on any probe

Products

Trimeter - Three Parameters at the Lowest Possible Cost

Get all the features of a Manta, including top-grade sensors and simple software, in an instrument designed for economy. Each Trimeter employs one of any sensor that Eureka offers, plus optional temperature and depth sensors.



A Data Display for Every Application and Budget

The Amphibian2 is a waterproof, full-function Windows Mobile PDA incorporating the Manta Manager user-interface, with GPS, camera and cell phone options. It is also easy to read in bright sunlight and super rugged!

Use your own smart phone or other display! The Leapfrog Bluetooth provides power to the Manta, and wireless communication to any Bluetooth-enabled display running the Manta Manager application - Windows Mobile, Windows for PC, or Android and iOS.



Manta Plus

The Manta family offers up to 12 sensors in one, integrated package. Each Manta comes standard with a weighted sensor guard, storage and calibration cups, temperature sensor, embedded memory for internal logging, marine connector, electronic manual, MantaManager software and standard three year warranty.

Available sensors include temperature, optical DO, pH, ORP, conductivity, depth, level, turbidity, fluorometers including chlorophyll a, chlorophyll red, phycocyanin, phycoerythrin, fDOM, fDOM II, rhodamine, fluorescein, crude oil, refined fuels, optical brighteners, and tryptophan/BOD, CO2, ammonium, nitrate, sodium, calcium, bromide, chloride, TDG, PAR, dual PAR, and transmissivity.



Field-Proven Methods to Minimize Fouling

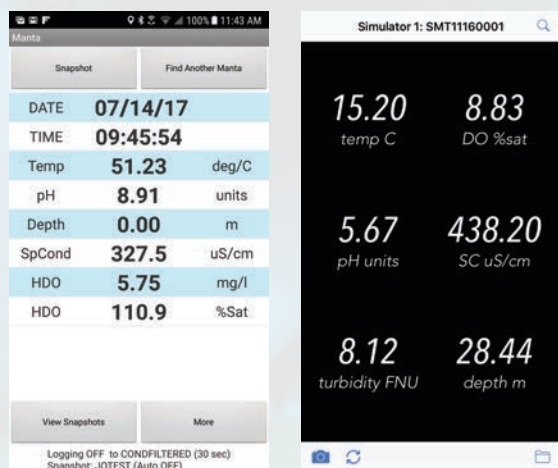
The Extended Turbidity Brush cleans turbidity and other sensors, such as DO, chlorophyll, and BG algae.

The MiniCleaner is a stand-alone wiper system used when you don't have an Extended Turbidity Brush.

The Copper-Gauze Kit wraps the sensors in copper gauze that slowly dissolves, bathing the sensors with the copper ions that discourage biofouling. Copper gauze is superior to solid copper, which becomes ineffective once oxidized.



Mobile Version



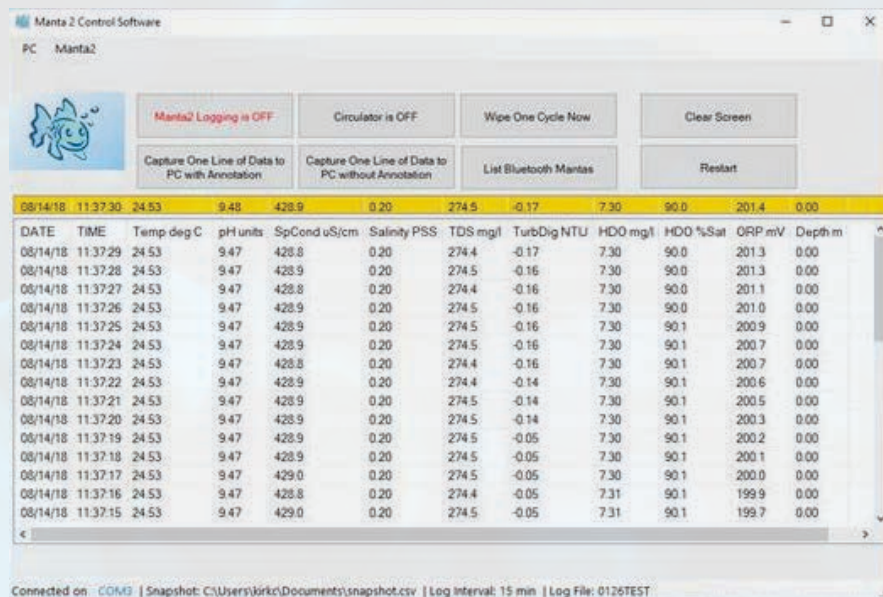
Android

MantaLink software is available for Android and iOS with small screen features like “swipeable” pages and large, high-contrast numbers for easier visibility in sunlight.

iOS

Manta Software

The Manta Software features simple to use, intuitive menus. Instructions take the user through the calibration of each sensor. Easy set-up for discrete sampling “snapshot” files or log files for internal logging, using Windows architecture. All files are in .csv format.



Accessories for Every Application

Standard accessories include flow cells, copper-gauze anti-fouling kits, cable reels, SDI-12 converters, hard-sided cases, soft padded backpacks, pipe kits to protect logging units in the field, weather stations, Leapfrog Bluetooth, and a full line of calibration standards including secondary calibration standards for fluorometers.



Applications

lakes, rivers, ground water, storm water, estuaries,
streams, ponds, near-shore oceanographic,
process waters, waste waters, laboratory research

**Site to Site
Profiling**



**Process
Monitoring**



**Unattended
Logging**



Ground Water



**Telemetered
Deployments**



**Buoy
Deployments**



Manta+™ Multiprobe Specifications						
	Trimeter	Manta+20	Manta+25	Manta+30	Manta+35	Manta+40
Diameter	1.85"	1.95"	2.45"	2.95"	3.5"	4.00"
Length - w/o Battery Pack	13.5"	19"	19"	19"	19"	19"
- Add Internal Battery Pack	22"	27"	27"	27"		
Weight - with IBP - without battery	2.8 lbs	2.4 lbs	2.5 lbs	5.0 lbs	9.0 lbs	10.0 lbs
	2.2 lbs	1.8 lbs	2.2 lbs	3.6 lbs	5 lbs	6.2 lbs
Number of sensors	Any single sensor plus depth and temp option	Up to 6	Up to 6	Up to 7	Up to 11	Up to 13
Battery Pack	3 "D"	3 "D"	3 "D"	8 "C"	6 "C"	6 "C"
Operating Temperature	-5 to 50 C					
Depth Rating	200 m, Max depth for ISE and TDG sensors is 15 meters					
Communications	RS-232, SDI-12, USB or Bluetooth					
Sample Rate	1 Hz					
Data Memory	>1,000,000 logged readings					
Amphibian2 Handheld Display						
Size	3.6" W x 7.25" L x 1.5" D					
Weight	1.3 lbs					
Operating System	Microsoft® Windows Embedded Handheld 6.5.3					
IP Rating	IP68					
Memory and Data Storage	512MB RAM; 8 GB - > 8,000,000 logged readings					
Sensor Specifications						
sensor	parameter	range and 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; 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		
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		
transmissivity	transmissivity	0 to 100% transmission	0.01	linearity of 0.99 R ²	transmissometer mounts externally to Manta	
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		
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	calculated from conductivity and temperature, PSU is equivalent to ppt
	salinity	0 to 70 PSU	0.01	±2% 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 500 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 1000 ppb				
	Phycocyanin (freshwater BGA)	0 to 4500 ppb				
	Phycocerythrin (marine BGA)	0 to 750 ppb				
	CDOM/FDOM	0 to 1500/3000 ppb				
	optical brightener	0 to 2500 ppb				
	tryptophan	0 to 5000 ppb				
	fluorescein dye	0 to 500 ppb				
	PTSA	0 to 650 ppb				
ion-selective electrodes (ISE's)	refined oil	0 to 20 ppm	0.1	±10% of reading or 2mg/L w.i.g.	corrected for ionic strength (via conductivity readings); the accuracy specification relies on non-trivial maintenance practice and frequent calibration near the temperature of measurement; sensors require periodic tip replacement	
	crude oil	0 to 1500 ppb				
	ammonium	0 to 100 mg/l as nitrogen				
	nitrate	0 to 100 mg/l as nitrogen				
	chloride	0.5 to 18,000 mg/l				
PAR	sodium	0.05 to 20,000 mg/l	0.1	±5% of reading	LiCor spherical sensor	
	calcium	0 to 40,000 mg/l				
	bromide	0 to 80,000 mg/l				
CO2	photometric PAR	10,000 µmol/cm2	0.1	±3% of full scale	other ranges available	
	carbon dioxide	0 to 2000 ppm	0.1			
Warranty						
Manta+ Multiprobe	3 years *		Underwater cables		3 years	
Amphibian2 Handheld	2 years		Leapfrog Bluetooth		3 years (battery – 90 days)	
Optical DO Cap	3 years		Turbidity Wiper		2 years	
FOR BEST ACCURACY, ALWAYS CALIBRATE NEAR THE ANTICIPATED FIELD READINGS, AND NEAR THE TEMPERATURE OF THE ANTICIPATED FIELD READINGS.						
*All sensors included except ISE's (Ammonia/nitrate/chloride);						
pH sensor included in 3 year warranty						
Specifications indicate typical performance and are subject to change.						