



 manta+™  
Monitoring made easy.

eureka™  
water probes



Click to see all Manta+  
Sensor configurations



## 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
- Collect and manage data with mobile apps



### Trimeter

- temperature
- depth
- + any other sensor



### Manta+20

- temperature
- pH
- conductivity
- DO (optical)



### Manta+25

- temperature
- pH
- conductivity
- Turbidity (or any fluorometer)



### Manta+30

- temperature
- pH
- conductivity
- DO (optical)
- Turbidity (or any fluorometer)



## Manta+35



## Manta+40



### Standard on Manta+35, +F35 and +40

- temperature
- pH
- conductivity
- DO (optical)
- turbidity
- universal wiper

### Additional options:

#### Fluorometers

- chlorophyll a
- blue-green algae
- CDOM/FDOM
- rhodamine
- fluorescein
- PTSA
- tryptophan
- optical brighteners
- oil-crude
- oil- fine

#### ISE's

- nitrate
- ammonium
- chloride
- bromide
- calcium
- sodium

#### Specialty

- PAR
- CO2
- TDG

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

## Manta+ F35

The Manta+F35 includes the same standard sensors as the +35, with the option to add up to three fluorometers. The +F35 features an anti-fouling copper-infused “nose cone” which covers the sensor bodies. A central wiper system keeps the exposed sensor surfaces clean during continuous deployments. This means better data and less over-all cleaning is required. PAR, CO2, TDG, and ISE sensors are not supported on the +F35.





## Trimeter—When you only need a few sensors

Get the features of a Manta+, including top-grade sensors, operation with mantaMobile Bluetooth device and mantaLink mobile Apps—all in an instrument designed for economy. The Trimeter may be equipped with one of any of Eureka's sensors (except PAR and CO<sub>2</sub>), plus Temperature and Depth sensors.

## Manta+

The Manta+ multiprobe family offers a variety of standard and custom configurations, with the largest probe holding up to 14 sensors. Each Manta+ comes with a weighted sensor guard, storage/calibration cup, temperature sensor, embedded memory for internal logging, marine connector, electronic manual, MantaManager software for Windows, data and USB cables for Windows PC operation, and standard three-year factory warranty. A wiper system is available for probes used for extended long-term deployments. Manta+ probes are used for discrete sampling, self-powered logging, or for connection to data stations.



## Field-Proven Methods to Minimize Fouling

Eureka's specialized probe wiper system cleans sensors that are sensitive to bio-fouling, like dissolved oxygen, and fluorometers such as chlorophyll, and blue-green algae. Additionally, the copper antifoul kit may be utilized to increase protection. This unique sensor guard surrounds 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.



## mantaMobile

The mantaMobile wireless Bluetooth device provides an easy to use, cost-effective way to collect water quality data from any Eureka Manta+ water probe, using iOS and Android displays running the mantaLink App. For use with any length of underwater cable up to 200 meters. It quickly pairs with devices via Bluetooth for operation in the field. Used for discrete sampling, profiling, to download log files, or for operation with cable reels. Provides up to 30 hours of continuous run-time.



## Data Displays for Every Application and Budget

Use your own Apple or Android phone or tablet to operate Manta+ probes or choose from a variety of displays offered by Eureka.

## Mobile Apps

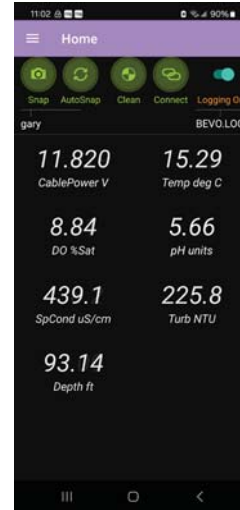
Eureka's mantaLink app is the user-interface for operation of the Manta+ family of multiprobes. Capture instant or continuous data, configure sensors and parameters, download and manage data files, calibrate sensors, enable GPS functions such as location tracking and Geofencing, email data files, and much more. The app works with Eureka's mantaMobile, which is a rechargeable, lithium battery with a built-in Bluetooth transceiver. The battery powers the multiprobe, while the Bluetooth feature allows the Manta+ to talk to your phone or tablet.

*Try out the demo simulator included with the free download!*

### mantaLink Apps



iOS



Android



## Manta Software for Windows

Use the Manta+ data cable with RS-232 to USB adapter, to connect your water probe via USB, for operation with the Manta Control Software for Windows PC's and laptops. Eureka's Windows software for the Manta+ family of probes features simple to use, intuitive menus for data capture, sensor calibrations and configuration, file management, and more. It also includes a feature for use by software developers and end users, to toggle to ASCII mode to access programming commands needed for communication with external data loggers. This feature is also used by the Eureka Support Team to guide the user through troubleshooting routines.

## Accessories for Every Application

Many accessories are available for the Manta+ line of multiprobes, including underwater cables 3 -200 meters in length, USB adapters, data cables for office use, flow-cells, copper-gauze anti-fouling sensor guards, cable reels for extra-long cables, internal and external SDI-12 converters, carry cases, pipe kits to protect probes used for continuous deployments, mantaLink Bluetooth battery device, attachable rechargeable battery packs for powering probes used for continuous deployment, and a full line of calibration standards including secondary calibration standards for fluorometers.



Rechargeable Battery Pack



Pipe Kits



Carry Cases



Calibration Solutions



Cable Reel



Flow Cells

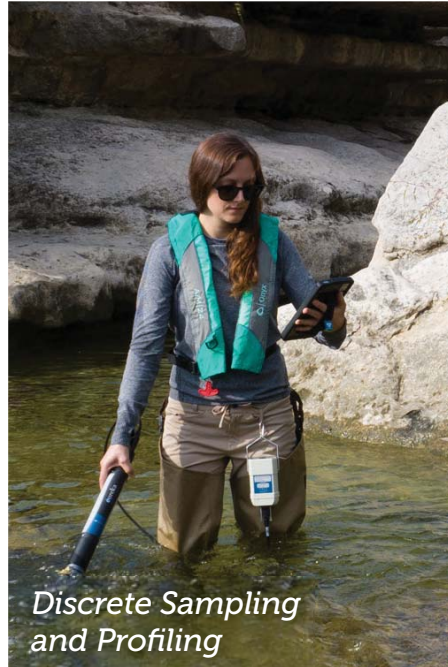


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## Applications

Eureka's water probes are used to collect water quality data in any kind of water—lakes, rivers, groundwater, stormwater, estuaries, streams, ponds, near-shore oceanographic, process waters, waste waters, and for laboratory research.

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*Discrete Sampling  
and Profiling*



*Unattended  
Logging*



*Telemetry*



*Process  
Monitoring*



*Buoy  
Deployments*



*Groundwater*

## Sensor Specifications

Sensor	Parameter	Range	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	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 <sup>2</sup>	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	
	salinity	0 to 70 PSU	0.01	±2% of reading	
	total dissolved solids (TDS)	0 to 65 g/l	0.1	±5% of reading	calculated from conductivity and temperature, PSU is equivalent to ppt
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	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 <sup>2</sup>	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			
ion-selective electrodes (ISE's)	bromide	0 to 80,000 mg/l	.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, max depth 15m
photometric PAR	photometric PAR	10,000 µmol/cm2	0.1	±5% of reading	LiCor spherical sensor
CO2	carbon dioxide	0 to 2000 ppm	0.1	±3% of full scale	other ranges available, max depth 50m

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

## Manta+™ Multiprobe Specifications

		Trimeter	Manta+20	Manta+25	Manta+30	Manta+35	Manta+F35	Manta+40
<b>diameter</b>		1.95"	1.95"	2.45"	2.95"	3.5"	3.5"	4.0"
<b>length with guard</b>	no battery pack	16.5"	19"	19"	19"	21"	21"	21"
	with IBP (internal battery pack)	26.25"	27.75"	27.75"	24.75"	22.5"	22.5"	22.5"
	with EBP (external Li-ion battery pack)	24"	26.5"	26.5"	26.5"	28.5"	28.5"	28.5"
<b>weight with guard</b>	no battery pack	2.3 lbs	2.7 lbs	3.95 lbs	5.7 lbs	7.75 lbs	7.75 lbs	10.65 lbs
	with IBP	3.15 lbs	3.45 lb	6.55 lbs	6.8 lbs	8.75 lbs	8.75 lbs	11.65 lbs
	with EBP	4.55 lbs	4.95 lbs	6.2 lbs	7.95 lbs	10 lbs	10 lbs	12.9 lbs
<b>IBP configuration</b>		3 "D"	3 "D"	3 "D"	8 "C"	6 "C"	6 "C"	6 "C"
Weight of disposal lead acid batteries not included in total probe weight with IBP compartment.								
<b>operating temperature</b>		-5 to 50 C						
<b>depth rating</b>		200 m						
<b>communications</b>		RS-232, SDI-12, Modbus, USB or Bluetooth						
<b>sample rate</b>		1 Hz						
<b>data memory</b>		>1,000,000 logged readings						

## Warranty

<b>Manta+ multiprobes &amp; sensors</b>	3 years*
<b>Replaceable optical DO cap</b>	3 years
<b>Underwater cables</b>	3 years
<b>mantaMobile</b>	3 years

\*All sensors included except ISE replaceable tips

Specifications indicate typical performance and are subject to change. See [www.waterprobes.com](http://www.waterprobes.com) for current specifications.

## About Us

Eureka was formed in 2002 by industry veterans who believed there was considerable room in the multiprobe market for improvements in technology and customer service. Eureka is an employee-owned partnership with extensive history in the water quality industry.

Eureka Water Probes continues to provide innovative, reliable multiprobes backed by market-leading customer service. Designing and manufacturing the world's best multiprobes remains our sole focus.



Give us a call!  
We can make your data-collection easier, better, and more cost effective.



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