

E F F I C I E N T R E L I A B L E E A S Y T O U S E

P R E S E N T I N G

Quanta[®]

H Y D R O L A B ' S S L E E K N E W W O R K H O R S E
F O R W A T E R Q U A L I T Y M O N I T O R I N G



HYDROLAB[®]
A HACH COMPANY BRAND
HELPING YOU PRESERVE
THE WORLD'S WATER

INTRODUCING *Quanta*[®]



PORTABLE AND RUGGED, THE QUANTA SYSTEM IS BACKED BY A THREE-YEAR WARRANTY.

Hydrolab Corporation is proud to introduce the Quanta, the newest member in our family of robust water quality monitoring instruments. In designing the Quanta, our goal was to deliver a well-built, easy-to-use, multi-parameter instrument at a much lower price than has ever been seen on the market — without a single compromise in data quality.

The Hydrolab engineering team thoroughly analyzed our current and past instruments and incorporated the best designs from each into the Quanta. By combining state-of-the-art technology, designs proven by over 40 years of experience, and modern manufacturing principles, Hydrolab is able to offer the sleek, high-performance Quanta at a fraction of the cost of other professional-grade water quality instruments.

COMPACT AND COMPLETE

The Quanta is a complete system capable of monitoring multiple water quality parameters simultaneously. Each unit is custom configured to the parameters you want to monitor, and can operate at depths up to 100 meters. The Quanta display is durable, rugged and rated NEMA 6 (waterproof), capable of storing 200 frames of data, and shows five parameter values at once. The Quanta transmitter, display, and cable form a compact, light-weight system at an extraordinarily affordable price, with the best warranty in the industry.

VERSATILE APPLICATIONS

The Quanta is designed for monitoring in rivers, lakes, streams, oceans and everything in between. It can be used in polluted or non-polluted water. When equipped with the optional flow cell, it can be used to monitor water quality parameters in ground water as well.

REMOTE OPERATION

Hydrolab offers land-based and buoy-based logging and communications systems for the Quanta. Utilizing advanced telecommunications technology, you can access your data from anywhere in the world.



WHY QUANTA

The Quanta is multi-parameter, gathering readings from all sensors simultaneously. There is no need to change sensors or to use more than one instrument.

The Quanta can measure the following at depths up to 100 meters:

- ✓ Temperature
- ✓ Dissolved Oxygen
- ✓ Specific Conductance/Salinity
- ✓ pH
- ✓ ORP
- ✓ Depth
- ✓ Vented Level (submerged depth up to 10 meters)
- ✓ 4-Beam Turbidity

The Quanta comes with the popular SDI interface, allowing connection to a number of third-party dataloggers. Up to 10 Quanta transmitters can be daisy-chained together.

Except for the 4-Beam turbidity sensor, which uses GLI method 2, an approved methodology under the Safe Drinking Water Act, all of our sensors, as well as the sample circulator, conform to the specifications set forth in *Standard Methods for the Examination of Water and Wastewater*. This has long been recognized as the standard by the U.S. Environmental Protection Agency.

Optional accessories include a backpack, flow cell, and Secchi disk.

The Quanta display features an easy, intuitive menu system. It can log up to 200 frames of data, and allows quick calibration of the instrument.

The Quanta is backed by a three-year warranty.

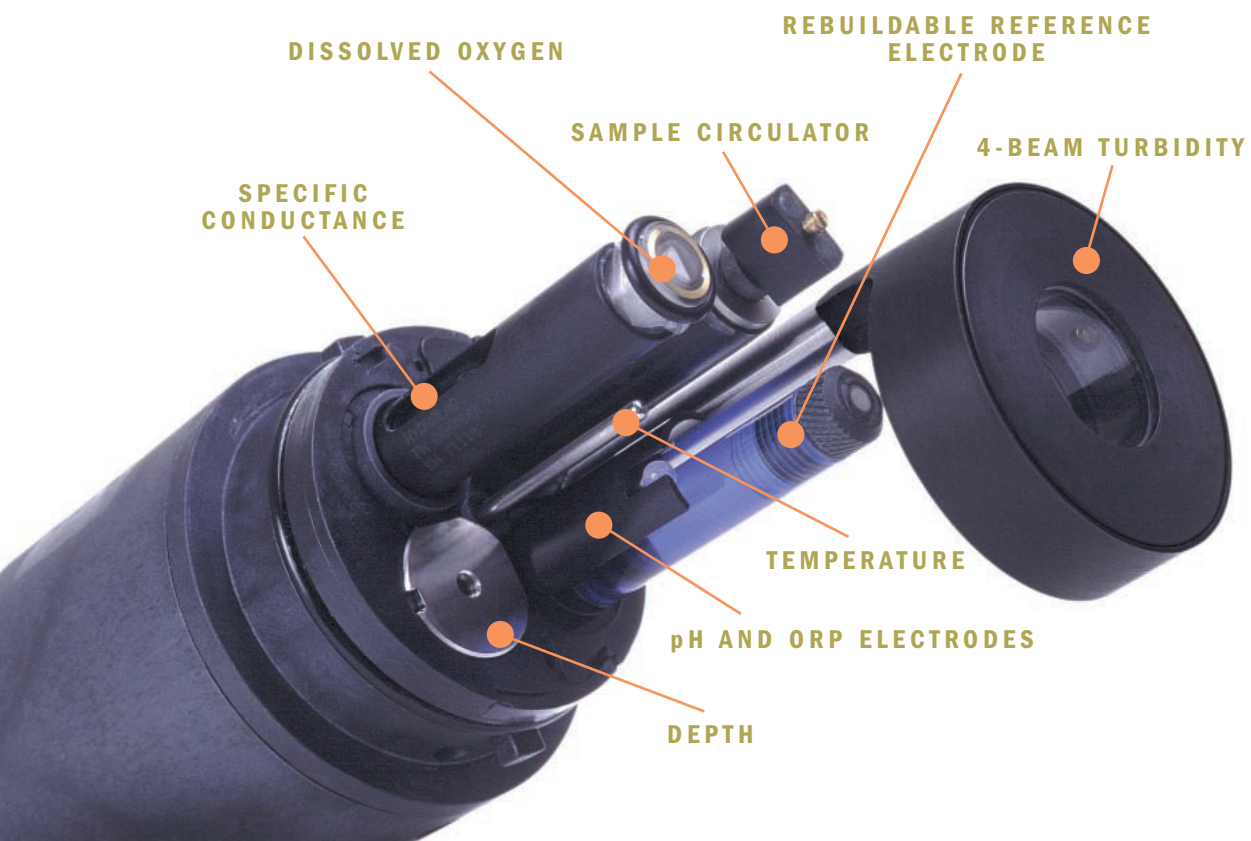
Quanta[®] COMPONENTS

A Quanta system is composed of three components — the Quanta transmitter, which houses the sensors, the Quanta display, which supplies power and shows the data, and a connecting cable. Each component is covered by a three-year warranty. At the heart of the Quanta is Hydrolab's superior sensor technology. These sensors have been rigorously field-tested and are proven to deliver reliable water quality data.

TEMPERATURE – Hydrolab uses a high stability thermistor in a 316 stainless steel tube. ■ Never needs calibration.

DISSOLVED OXYGEN – Hydrolab uses the field-proven Clark Cell technology. ■ Provides a continuous steady-state reading. ■ Is low maintenance — easily and affordably cleaned and maintained. No need to recondition sensor.

SUPERIOR SENSOR TECHNOLOGY



pH – Hydrolab uses a standard pH glass sensor and unique rebuildable reference electrode. ■ Our reference electrode is more reliable, lasts longer, is easier to maintain, and refills in seconds. ■ No need to replace the sensor.

ORP – Hydrolab uses the standard platinum electrode.

SPECIFIC CONDUCTANCE – Hydrolab uses the standard four electrode cell methodology. ■ Open cell design is easy to maintain and provides more reliable data — air bubbles and sediment do not affect sensor.

DEPTH – Hydrolab uses a custom-made high stability pressure sensor. ■ Two ranges are available — 0-25 meters and 0-100 meters.

VENTED LEVEL – The Quanta is available with 0.003 meter (0.01 foot) accuracy over the range of 0-10 meters. This accuracy is valid for the full temperature range, not just at 25°C. ■ The vent provides automatic correction for changes in atmospheric pressure.

TURBIDITY – Only Hydrolab offers the 4-Beam turbidity sensor. ■ The 4-Beam turbidity sensor is fouling resistant and accurate. ■ Optional Quick-Cal Cube™ makes calibration verification a snap.

THE QUANTA DISPLAY



- ✓ Shows readings of five parameters at once
- ✓ Simple, intuitive operation
- ✓ Low battery indicator
- ✓ Stores 200 frames of data
- ✓ Easy calibration

ONLY HYDROLAB OFFERS A SAMPLE CIRCULATOR FOR MORE RELIABLE READINGS

The Quanta's integrated sample circulator creates a flow of water past the sensors. The miniature circulator facilitates fast, accurate, steady-state dissolved oxygen measurements, and provides other sensors these benefits:

- Reduces response time — important when detecting moving contaminant plumes, or when the sensors are moved up or down in a water column.
- Reduces the harmful effects of sensor fouling by sweeping away debris and discouraging biologically active foulants (bacteria, algae, fungi) from attaching to the sensors.
- With a sample circulator, the instrument can be used in all environments, no matter the flow. The instrument can be deployed in poorly mixed areas of a water body or in perforated steel or PVC pipes where there is very little flow.



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HYDROLAB'S 4-BEAM TURBIDITY SENSOR
THE CLEAR CHOICE FOR TURBIDITY MONITORING.

Hydrolab's patented 4-Beam turbidity sensor incorporates the same technology used in many drinking water facilities, where accurate, reliable data is critical. The sensor is ISO 7027 compliant, and offers these additional features:

FOULING COMPENSATION – The technology automatically calculates and compensates for fouling on the optical lenses. Stray air bubbles will not affect the turbidity readings.

AMBIENT LIGHT REJECTION – The patented technology is immune to ambient light influences. The turbidity sensor can therefore be used in shallow rivers and streams.

ROBUST LIGHT SOURCE – Provides stable, accurate measurements.

QUICK-CAL CUBE™ – Hydrolab offers a unique, patented cube for calibration verification. The Quick-Cal Cube™ can be used as a secondary standard to check the calibration of the 4-Beam turbidity sensor.

ACCURACY – The 4-Beam technology makes the sensor the most accurate available for in-situ monitoring.

LARGE RANGE – The sensor can be used in waters ranging from 0 – 1000 NTU.

THREE-YEAR WARRANTY – Like all Quanta sensors, the sensor is covered by a three-year warranty.

PERFORMANCE SPECIFICATIONS

	Range	Accuracy	Resolution
Temperature	-5 °C to 50 °C	± 0.15 °C	0.01 °C
Dissolved Oxygen	0 to 50 mg/L	± 0.2 mg/L ≤ 20 mg/L ± 0.6 mg/L > 20 mg/L	0.01 mg/L
Specific Conductance	0 - 100 mS/cm (autoranged)	± 1% of reading ± 0.01 PSS	4 digits
pH	0 to 14 units	± 0.2 units	0.01 units
ORP	-999 to 999 mV	± 20 mV	1 mV
4-Beam Turbidity	0 to 1000 NTU	± 5% of reading ± 1 NTU	0.1 NTU (<100) 1 NTU (≥100)
Depth 0-25 m	0 to 25 m	± 0.1m	0.1 m
Depth 0-100 m	0 to 100 m	± 0.3 m	0.1 m
Vented Level 0-10m	0 to 10 m	± 0.003 m	0.001 m
Salinity	0 to 70 PSS	± 1% of reading ± 0.01 PSS	0.01 PSS

INSTRUMENT SPECIFICATIONS

Quanta Transmitter

Diameter: 7.6 cm (3 in)

Length: 22.9 cm (9 in)

Weight: 1.3 kg (3 lbs)

Quanta Display

Screen Size: 8.9 cm (3.5 in diagonal)

Weight (with batteries): 0.95 kg (2.1 lbs)

Memory: 200 data frames (1 frame can store all parameter values)

NEMA 6 rated (waterproof)

Low battery indicator

Operating temperature: -5 °C to 50 °C

Batteries: 3 "C" size batteries

Battery life: 15 Hours



EASILY MONITOR YOUR LOCAL WATERSHED.



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