Aqua TROLL® 700 Multiparameter Sonde

THE AQUA TROLL® 700 IS A FULLY CUSTOMIZABLE MULTIPARAMETER SONDE WITH INTERCHANGEABLE WATER QUALITY SENSORS AND A MOBILE APP INTERFACE THAT ENABLES SIMPLIFIED CALIBRATION, EASY SET UP AND AUTOMATIC DATA UPLOADS TO THE CLOUD.

The Aqua TROLL® 700 is a seven-port multiparameter sonde, including six sensor ports and a wiper port. There is an option to have an antifouling wiper to ensure data accuracy.

The Aqua TROLL® is optimized for long-term monitoring of water quality in the harshest environments. Monitoring experts appreciate low energy use that lengthens maintenance cycles, and an integrated LCD for checking deployment readiness and sensor status. Data traceability and security are assured with smart sensors that store calibration records and automatic file uploads from VuSitu to HydroVu for secure storage and access from any device. All features are delivered through a simplified user experience that makes this advanved technology accessible to everyone.

SIMPLIFIED USER EXPERIENCE

All Aqua TROLL® products use our industry-leading ecosystem, which includes:

- VuSitu mobile app with live data and in-app guidance through setup and calibration
- HydroVu software for anywhere, anytime data visibility of your data
- Data files that sync automatically to HydroVu for secure access on any device
- Sensors that can be used across multiple products, saving time and expense
- Common cables, communication device and VuLink telemetry

ANTIFOULING BY DESIGN

The Aqua TROLL® 700 was designed with features that make it easier to combat fouling, extending deployments and reducing site-visit maintenance time.

- Interlocking sensors reduce surfaces for fouling
- Dual-sided antifouling wiper cleans sensors and restrictor simultaneously
- Optional copper restrictor prevents biological fouling

BUILT-IN ERROR PREVENTION

Prevent the most common damage or loss with:

- Spring-loaded screws that keep screws in place
- Smart sensors that fit in any port
- Wet-mate connectors that prevent water damage
- Anti-roll bumpers to keep equipment stationary
- Slip-clutch wiper that prevents motor damage
- Titanium Twist-Lock connector and Kevlar-reinforced cable

WIDE RANGE OF PARAMETERS AVAILABLE

Available sensors include Rugged Dissolved Oxygen (RDO®), temperature, conductivity, pH, ORP, turbidity, chlorophyll a, phycocyanin (BGA-PC), phycoerythrin (BGA-PE), fluorescent dissolved organic matter (FDOM), crude oil, Rhodamine WT, ammonium, chloride, and nitrate. Enable additional derived parameters, or calculate custom parameters from HydroVu. See the Aqua TROLL® Sensors spec sheet for specifications and features.

LOWER CALIBRATION COSTS

The Aqua TROLL® 700 uses only 100 ml of solution for most calibrations, reducing calibration cost by 5x over traditional methods and saving thousands of dollars in calibration solution per year. In-app instructions ensure consistency and accuracy with every calibration.

GENERAL	AQUA TROLL 700 MULTIPARAMETER SONDE
OPERATING TEMPERATURE (NON-FREEZING)	-5 to 50° C (23 to 122° F) ISE: Ammonium & Nitrate 0 to 40° C (32 to 104° F) ; Chloride 0 to 50° C (32 to 122° F)
STORAGE TEMPERATURE	Components w/o fluid: -40° C to 65° C (-40° to 149° F) (non-freezing water); pH/ORP:-5° C to 65° C (-23° to 149° F) ; Ammonium/Nitrate: 0 to 40 ° C (32° to 104° F) ; Chloride: 0 to 50° C (32° to 122° F)
DIMENSIONS	Diameter: 7.2 cm (2.84 in) OD Length: 48.7 cm (19.16 in) Length With Bail: 61.67 cm (24.28 in)
WETTED MATERIALS	Buna-N, Noryl, Nylon, Polyphenylsulfone, Polycarbonate, Acetal, EPDM/Polypropylene TPV, FKM Fluoroelastomer, Titanium, Fluorocarbon Coating, Ceramic, Acrylic Adhesive Film, Polyurethane Adhesive, Graphite, PC/PMMA Blend, Acrylic, Sapphire, PVC, Platinum, Glass, Proprietary RDO Sensing Formulation
WEIGHT [1]	2.25 kg / 4.96 lbs (includes sensors and bail)
MAX PRESSURE RATING	Up to 350 PSI
COMMUNICATION OPTIONS	RS-485/MODBUS, SDI-12, Bluetooth
READING RATES	1 reading every 2 seconds
DATA LOGGING	Use external datalogger or telemetry
ENVIRONMENTAL RATING	IP68 with all sensors and cable attached IP67 without the sensors or cable attached
EXTERNAL POWER [2]	8-36 VDC; Sleep: <0.2 mA typical Measurement: 40 mA typical; 75 mA max
HEX SCREW DRIVER	1.3 mm, 0.050 in
COMMUNICATION DEVICE	TROLL Com Plus or VuLink
CABLE OPTIONS	Vented or non-vented polyurethane or vented Tefzel® Twist-Lock or Flying Leads termination
LCD DISPLAY	Integrated display shows status of sonde, sensor ports, connectivity, power information, battery capacity and data log status
SOFTWARE	Android: VuSitu through Google Play and Amazon App Store iOS: VuSitu through Apple App Store
CERTIFICATIONS	CE, FCC, WEEE, RoHS Compliant
DATA SERVICES	HydroVu

SENSOR	ACCURACY	RANGE	RESOLUTION/PRECISION	RESPONSE TIME	UNITS OF MEASURE
PRESSURE (OPTIONAL) [3]	±0.1% FS from -5 to 50°C	Non-Vented or Vented 0-10 m (0-33 ft) 0-30 m (0-98 ft) 0-100 m (0-328 ft) 0-250 m (0-820 ft)	0.01% full scale	T63<1s, T90<1s, T95<1s	Pressure: psi, kPa, bar, mbar, inHg, mmHg Level: in, ft, mm, cm, m, cmH20, inH2O

NOTES: [1]Weight includes sonde, sensors, wiper, and bail. [2]Current from an external power source must not exceed 4 amps. [3]User-defined reference.

For interchangeable sensor specifications, see the sensor spec sheet. Specifications are subject to change without notice.
WARRANTY: 2 year – Sonde, wiper. 1 year- Accessories. See warranty policy (www.in-situ.com/warranty) for full details. See the Aqua TROLL Sensors Spec Sheet for sensor warranty information.

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