



Aqua TROLL® 500 Multiparameter Sonde

The AquaTROLL 500 from In-Situ is a premier water quality sensor with wet-mateable sensors. The multiparameter sonde replaces single parameter instruments and requires minimal maintenance and calibration.

The corrosion-resistant multiparameter sonde withstands harsh environments, whilst an LCD readout of sensor health and connectivity gives you confidence in your deployment.



Applications:

- Surface water profiling
- Aquaculture farm health
- Offshore Construction EIA
- Fresh, waste and storm water monitoring
- Port and Harbour pollution monitoring
- Chemical and effluent threshold alerts
- Water Quality regulation compliance

Specifications

The customizable sonde comes with sensors that include:

- RDO® Optical Dissolved Oxygen
- Actual and specific conductivity
- pH/ORP
- Salinity
- Total dissolved solids (TDS)
- Temperature and pressure
- Ion Selective Electrodes
- Resistivity
- Density
- Turbidity
- Fluorometers



Simple setup: Connect easily with preprogramed Obscape PTM with GSM telemetry Transmitting real time data to the free to use secure and powerful Data Portal.

Save time in the field with Auto-configuration and fast sensor response speed up sampling, while automated data collection eliminates the need for frequent site visits.

Use the Aqua TROLL 500 anywhere: Flexible multiparameter sonde works for low-flow sampling as well as long-term deployments. Anti-fouling wiper and titanium construction provide reliability even in challenging conditions.



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Choose up to 4 sondes to monitor 8 parameters simultaneously

STANDARD SENSORS	ACCURACY	RANGE	RESOLUTION/PRECISION	RESPONSE TIME	UNITS OF MEASURE	METHODOLOGY
TEMPERATURE ²	± 0.1°C	-5 to 50°C (23 to 122°F)	0.01°C	T63<2s, T90<15s, T95<30s	Celsius or Fahrenheit	EPA 170.1
BAROMETRIC PRESSURE (VENTED MODELS ONLY)	± 1.0 mBars	300 - 1100 mBars	0.1 mBar	T63<1s, T90<1s, T95<1s	Pressure: psi, kPa, bar, mbar, inHg, mmHg;	Silicon strain gauge
pH ³	±0.1 pH unit or better	0-14 pH	0.01 pH	T63<3s, T90<15s, T95<30s	pH, mV	Std. Methods 4500-H+, EPA 150.2
ORP ⁴	+/- 5 mV	±1400 mV	0.1 mV	T63<3s, T90<15s, T95<30s	mV	Std. Methods 2580
CONDUCTIVITY ⁵	±0.5% of reading plus 1 µS/cm from 0 to 100,000 µS/cm; ±1.0% of reading from 100,000 to 200,000 µS/cm; ±2.0% of reading from 200,000 to 350,000 µS/cm	0 to 350,000 µS/cm	0.1 µS/cm	T63<1s, T90<3s, T95<5s	Actual conductivity (µS/cm, mS/cm); Specific conductivity (µS/cm, mS/cm); Salinity (PSU, ppt); Total dissolved solids (ppt, ppm); Resistivity (Ohm-cm); Density (g/cm ³)	Std. Methods 2510/ EPA 120.1
TDS (DERIVED FROM CONDUCTIVITY AND TEMP)	—	0 to 350 ppt	0.1 ppt	—	ppt, ppm	—
SALINITY (DERIVED FROM CONDUCTIVITY AND TEMP)	—	0 to 350 PSU	0.1 PSU	—	PSU, ppt	Std. Methods 2520A
RUGGED DISSOLVED OXYGEN (RDO) WITH RDO-X OR FAST CAP ⁶	±0.1 mg/L ±2% of reading	0 to 20 mg/L 20 to 60 mg/L	0.01 mg/L	RDO-X: T63<15s, T90<45s, T95<60s Fast Cap: T63<3s, T90<30s, T95<45s	mg/L, %saturation, ppm	EPA-approved In-Situ Methods: 1002-8-2009, 1003-8-2009, 1004-8-2009
TURBIDITY	±2% of reading or ±0.5 NTU, FNU, w.i.g. 12	0 – 4,000 NTU 0-1,500 mg/L	0.01 NTU (0-1,000); 0.1 NTU (1,000-4,000) 0.1 mg/L	T63<1s, T90<1s, T95<1s	NTU, FNU ppt, mg/L	ISO 7027
TSS (TOTAL SUSPENDED SOLIDS) ⁷	—	0 to 1,500 mg/L	0.1 mg/L	—	ppt, mg/L	—
AMMONIUM (NH ₄ ⁺ - N) ^{8,9} RATED TO 25 m DEPTH -Unionized Ammonia, Total Ammonia (requires salinity, temperature and pH)	±10% or ± 2 mg/L, w.i.g. 12	0-10,000 mg/L as N	0.01 mg/L	T63<1s, T90<10s, T95<30s	mg/L, ppm, mV	—
NITRATE (NO ₃ - N) ⁸ RATED TO 25 m DEPTH	±10% or ± 2 mg/L, w.i.g.12	0-10,000 mg/L as N 0-40,000 mg/L as N	0.01 mg/L	—	mg/L, ppm	—
NITRATE (NO ₃ - N) ⁸ RATED TO 25 m DEPTH	±10% or ± 2 mg/L, w.i.g.12	0-40,000 mg/L as N	0.01 mg/L	T63<1s, T90<1s, T95<1s	mg/L, ppm, mV	Std. Methods 4500-NO3 D
CHLORIDE (CL ⁻) ⁸	±10% or ± 2 mg/L, w.i.g.12	0-150,000 mg/L	0.01 mg/L	T63<1s, T90<10s, T95<30s	mg/L, ppm, mV	Std. Methods 4500-Cl- D
PRESSURE (OPTIONAL) ¹⁰	±0.1% FS from -5 to 50°C	Non-Vented or Vented 9.0 m (30 ft.) - Burst: 27 m (90 ft.) 30 m (100 ft.) - Burst: 40 m (130 ft.) 76 m (250 ft.) - Burst: 107 m (350 ft.) 100 m (325 ft.) - Burst: 200 m (650 ft.)	0.01% full scale	T63<1s, T90<1s, T95<1s	Pressure: psi, kPa, bar, mbar, inHg, mmHg; Level: in, ft., mm, cm, m; Level: in, ft., mm, cm, m	Piezoresistive; Ceramic

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