

In-Situ Aqua TROLL® 400 Multiparameter Meter

The Aqua TROLL® 400 is an unattended multiparameter probe that offers a standard suite of six water quality sensors. Ideal of long-term groundwater and surface water monitoring projects, the Aqua TROLL® 400 can be deployed for months of continuous data collection. With open communication protocols, the instrument easily interfaces with PLC/SCADA systems or Geotech's SitePro telemetry system allowing access to data and reports from any mobile device or workstation.

FEATURES

- Base sensor configuration includes: pH, ORP, temperature, Optical ODO dissolved oxygen, conductivity, salinity, resistivity, TDS, water level/depth.
- Long-lasting stable calibration reduces site visits
- Narrow-diameter probe for well or open water installations
- Modbus RS485 and SDI-12 communication protocols
- 2 Year Warranty

APPLICATIONS

- Long-term groundwater and surface water monitoring
- Coastal deployments – estuaries and wetlands
- Real-time water quality telemetry networks
- Remediation and mining
- Stormwater management



CALL GEOTECH TODAY (800) 833-7958

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In-Situ Aqua TROLL® 400 Multiparameter Meter

SPECIFICATIONS

GENERAL	
Operating Temp.	-5 to 50°C (23 to 122°F)
Storage Temp.	-40 to 65°C (-40 to 140°F)
Dimensions	4.7 cm (1.85 in.) OD x 26.9 cm (10.6 in.) with restrictor installed (does not include cable connector).
Weight	694 g (1.53 lbs.)
Wetted Materials	PVC, 316 stainless steel, titanium, Acetal, Viton®, PC/PMMA
Environmental Rating	IP68 with all sensors and cable attached. IP67 with sensors removed or cable detached.
Max. Pressure Rating	112 m (368 ft.); 160 psi
Output Options	Modbus/RS485 and SDI-12
Probe Reading Rate	1 reading every 5 seconds (no internal logging)
Power	Required: 8-36 VDC (no internal battery). Measurement current: 16 mA @ 24 VDC. Sleep current: 40 µA @ 24 VDC
Interface	In-Situ Con TROLL PRO System; Vulink Telemetry System; SCADA/PLC; HydroVu Data Services, and third-party data loggers, samplers, controllers, and telemetry systems.
Cable	Customizable, non-vented (absolute) RuggedCable® System is available in either Tefzel® or polyurethane.

STANDARD SENSORS	ACCURACY	RANGE	RESOLUTION	SENSOR TYPE	RESPONSE TIME	UNITS OF MEASURE	METHODOLOGY
Level, Depth, Pressure	Typical ±0.1% FS @ 15°C; ±0.3% FS max. from 0 to 50°C	76 m (250 ft.); absolute (non-vented)	±0.01% FS or better	Fixed	Instantaneous in thermal equilibrium	Pressure: psi, kPa, bar, mbar, mmHg Level: mm, cm, m, in., ft.	Piezoresistive; ceramic
Conductivity	Typical ±0.5% + 1 µS/cm; ±1% max.	5 to 100,000 µS/cm	0.1 µS/cm	Fixed	Instantaneous in thermal equilibrium	Actual conductivity (µS/cm, mS/cm) Specific conductivity (µS/cm, mS/cm) Salinity (PSU) Total dissolved solids (ppt, ppm) Resistivity (Ohms-cm) Density (g/cm3)	Std. Methods 2510 EPA 120.1
Dissolved Oxygen Optical RDO-X Cap	±0.1 mg/L ±2% of reading	0 to 20 mg/L 20 to 60 mg/L Full operating range: 0 to 60 mg/L	0.01 mg/L	Fixed with replaceable RDO Sensor Cap. Supports Classic, Fast, and RDO-X caps. Ships with RDO-X cap.	T90: <45 sec. T95: <60 sec	mg/L, % saturation, ppm, pp02	EPA-approved In-Situ Methods 1002-8-2009 1003-8-2009 1004-8-2009

Interferences: Alcohols >5%; hydrogen peroxide >3%; sodium hypochlorite (commercial bleach) >3%; gaseous sulfur dioxide; gaseous chlorine. Organic solvents and certain petroleum-based hydrocarbons may swell the sensing element and destroy it. Examples include, but are not limited to, acetone, chloroform, methylene chloride, and BTEX compounds.

ORP	±5.0 mV	±1400 mV	0.1 mV	Replaceable pH/ORP combo sensor	<15 sec.	mV	Std. Methods 2580
pH	±0.1 pH unit	0 to 14 pH units	0.01 pH unit	Replaceable pH/ORP combo sensor	<15 sec., pH 7 to pH 4	pH units, mV	Std. Methods 4500-H+ EPA 150.2
Temperature*	±0.1°C	-5 to 50°C (23 to 122°F)	0.01°C or better	Fixed	<30 sec.	Celsius, Fahrenheit	EPA 170.1

WARRANTY

2 years

Specifications are subject to change without notice. NIST is a registered trademark of the National Institute of Standards and Technology. Tefzel is a registered trademark of E.I. du Pont de Nemours & Co. Viton is a registered trademark of DuPont Performance Elastomers L.L.C.

*Temperature response only. System response time depends on site conditions.

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