

Water Quality Monitor

In-Situ Aqua TROLL® 200

The Aqua TROLL® 200, the first in a new line of water quality instruments from In-Situ® Inc., monitors and logs conductivity, level/pressure and temperature in the harshest environments. Designed to combat fouling and conserve power, the Aqua TROLL® 200 is built to extend deployment. Powers on external 8-36V DC or internal batteries that are guaranteed for 5 years when reading in 15 minute intervals. Ultra-rugged, corrosion-resistant, titanium construction and small 0.72" (18.3 mm) diameter make the Aqua TROLL® 200 ideal for demanding marine, surface and ground water applications. Building on the successful Level TROLL® platform, the Aqua TROLL® 200 is SCADA and telemetry ready. Standard outputs include Modbus/RS485, SDI-12 and 4-20 mA.

FEATURES

- **EXTENDED DEPLOYMENT**
Designed to combat fouling and conserve power – runs on external 8-36V DC or internal batteries that are guaranteed for 5 years when reading every 15 min.
- **RUGGED RELIABILITY**
Housed in a completely sealed, durable titanium housing that safeguards against corrosion even in the harshest conditions
- **EASE OF USE**
Simple installation and operation using In-Situ's Twist-Lock cable connections and industry-leading Win-Situ® software
- **FLEXIBLE COMMUNICATIONS**
SCADA and Telemetry Ready – built-in Modbus/RS485, SDI-12, and 4-20 mA output communications
- **UNPARALLELED ACCURACY**
Calibrated and validated with NIST® traceable standards, plus real-time level compensation based on water density, so you can be confident it meets our published specifications
- **EXPERT SERVICE**
Free 24-7 technical support

TYPICAL APPLICATIONS

- | | |
|--------------------------------|--------------------------------|
| • Saltwater Intrusion Projects | • Aquifer Storage and Recovery |
| • Wetlands Applications | • Ground Water Monitoring |
| • Estuary Projects | • Surface Water Monitoring |
| • Discharge Monitoring | • Landslide Prediction |
| • Tide Gage Monitoring | |

WIN-SITU® SOFTWARE

Connect to the Aqua TROLL® 200 and view data in a format you like faster and easier than ever before! Win-Situ® software has been completely redesigned with you in mind.

Win-Situ® features a streamlined graphical interface with pictures

and diagrams to guide setup. Data is stored by your sites and can be viewed or instantly exported to Microsoft Excel®. Every screen has an easy-to-read graphical 'dashboard' with indicators. Plus, friendly wizards guide every step.



CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.
2650 East 40th Avenue • Denver, Colorado 80205
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com

Water Quality Monitor

In-Situ Aqua TROLL® 200

SPECIFICATIONS

General

Length	12.4" (31.5cm)
Diameter	0.72" (18.3mm)
Weight	1.0 lbs. (0.5 kg)
Housing Material	Titanium
Nose Cone Material	Black Delrin®
Output Options	Modbus RS485, SDI-12, 4-20 mA
Fastest Polling Rate	
Modbus RS485	1 per second
SDI-12	1 per second
4-20 mA	1 per second
Pressure Range of Operation	5-500 psi (0-1153 ft.)
Operating Temperature Range	-20° to 65°C (-4° to 149°F)
Storage Temperature	-40° to 65°C (-40° to 149°F)

Power

Internal Battery	3.6V lithium
External Power	8-36V DC
Guaranteed Battery Life	5 years or 200,000 readings*

Logging

Memory	4MB, 380,000 data points**
Log Types	Linear, Linear Average*** and Event***
Fastest Reading* Rate	
Linear	1 per minute
Linear Average***	1 per second
Event***	1 per second
Fastest Logging Rate	
Linear	1 per minute
Linear Average***	1 per 2 seconds
Event***	1 per second
Maximum Number of Logs	50

*1 reading = time and date plus all available parameters polled or logged from device.

**1 data point = time and date plus one parameter logged.

***External power supply or battery pack required when using event testing, recommended when using linear average testing.

Temperature

Material	Titanium
Range	-20°C to 65°C (-4°F to 149°F)
Unit of Measure	Celsius or Fahrenheit
Accuracy	±0.1°C
Resolution	0.01°C

Conductivity

Sensor Type	Balanced 4-electrode cell	
Sensor Material	PVC, titanium	
Range	5µS/cm - 100,000µS/cm	
Accuracy	±0.5% of reading plus 1 µS/cm from 5 µS/cm to 80,000 µS/cm ±1.0% of reading from 80,000 µS/cm to 100,000 µS/cm	
Resolution	0.1µS/cm	
Parameters Supported*	Units	Range
Actual Conductivity	µS, mS	5 µS/cm - 100,000 µS/cm
Specific Conductivity**	µS, mS	5 µS/cm - 100,000 µS/cm
Salinity***	PSU	0-42 PSU
TDS	ppm, ppt	0-82 ppt
Resistivity	Ohms-cm	10-200,000 Ohms-cm
Density (Water)	gm/cm ³	0.98-1.14 gm/cm ³

*Parameters derived at 25°C and Actual Conductivity range of 5µS/cm - 100,000 µS/cm with a ±0.05% plus 1µS/cm accuracy;

**Derived from Standard Methods 2510B.

***Defined by the Practical Salinity Scale 1978 Standard Methods 2520B.

Pressure/Level*

Sensor Type	Silicon Strain Gauge
Material	Titanium
Range, Non-Vented	30, 100, 300, 500 psia 35.8, 197.3, 658.7, 1120 ft. 10.9, 60.1, 200.7, 341.3 m
Range, Vented	5, 15, 30, 100, 300, 500 psig 11.5, 35, 69, 231, 692, 1153 ft. 33.5, 11, 21, 70, 210, 351 m
Units of Measure	PSI, KPa, mm, cm, m, in., ft., Bar, mBar, mmHg
Accuracy**	
@ 15°C	±0.05% Full Scale (FS)
0° to 50°C	±0.1% FS
-20° to -1°C and 51° to 80°C	±0.25% FS
Resolution	±0.005% FS or better
Max. Pressure	2X Range
Burst Pressure	3X range

*Real time Level compensation for density

**Accuracy with 4-20 mA output option: ±0.25% FS

Warranty

The Aqua TROLL® 200 comes with a one year warranty. Standard Twist-Lock cables include a one year warranty. Rugged Twist-Lock cables carry a two year warranty. Extended warranties available: call or visit in-situ.com for information on the Assurance Plus service and warranty program.

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.
2650 East 40th Avenue • Denver, Colorado 80205
(303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com