

# Water Level Instruments

# From data loggers, to telemetry, to data services, In-Situ is your one-stop-shop for the most trusted and complete line of water monitoring products and services.

In-Situ® Inc. is a leading manufacturer of in-situ (on-site) water monitoring instruments for groundwater and surface water applications. Since 1976, we have provided water monitoring markets with innovative solutions, like the smarTROLL™ Handheld System with the industry's first smartphone application for low-flow groundwater sampling and environmental monitoring. While we're known for high-accuracy water quantity and quality instrumentation, we also have an expanding portfolio of products and services, including a full-solution offering for decision-quality data via easy integration with our cellular telemetry and cloud-based HydroVu™ Data Services platform.

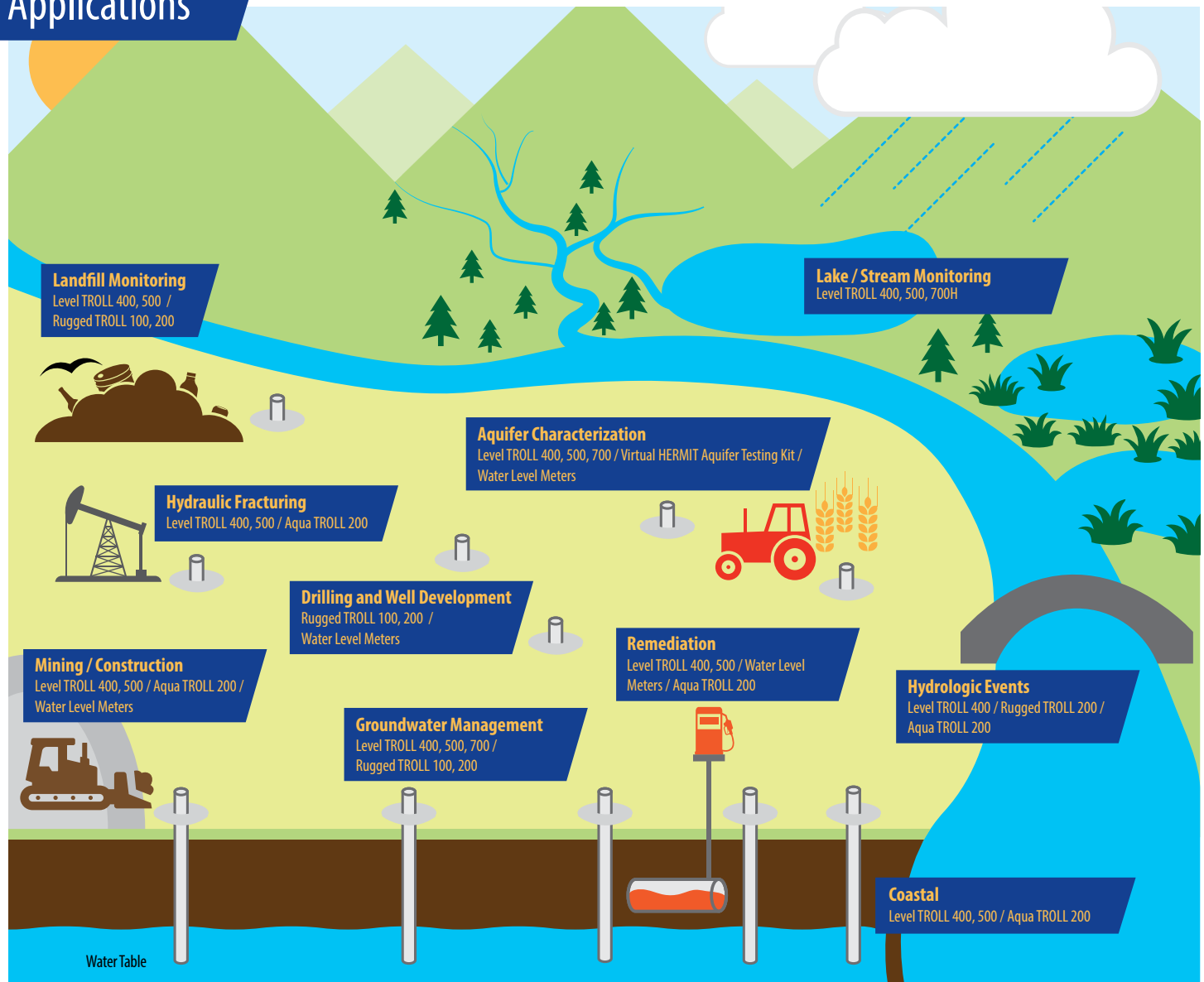
In-Situ offers a variety of accurate, reliable water level data loggers and meters for any project and budget. Whether you need long-term monitoring or instant results, the fully sealed, solid titanium Level TROLL® family of data loggers are built to last, saving you time and

money in the field. Our easy-to-use instruments, telemetry systems, and data services platform were designed to work together – even the most junior person on your staff can set up and get the data you need, every time. Additionally, the once difficult task of collecting, analyzing, and sharing data is now quick and easy. From your mobile device, to your laptop, to the cloud, your data is exactly where you need it, when you need it.

Our team of experts is ready to help you find the right solution for your project, and our support team is always standing by to offer 24/7 technical support and mobile help in the field. We're also happy to rent our equipment to you – fully serviced, calibrated, and ready to go.

Call or click to learn more: [www.in-situ.com](http://www.in-situ.com), [sales@in-situ.com](mailto:sales@in-situ.com), 800-446-7488 or 970-498-1500.

## Applications

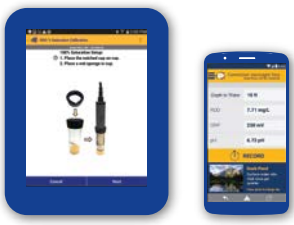


# Remote Monitoring Solutions

Data Services



In-depth data analysis



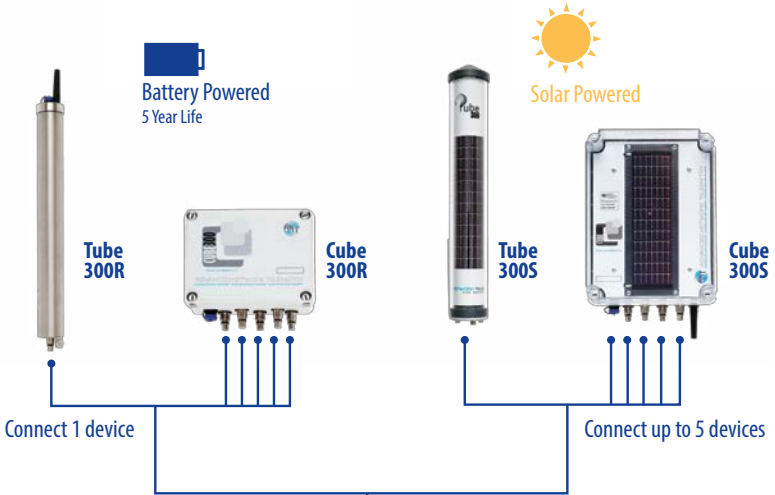
Mobile data access

## HydroVu™ Data Services:

- Organize multiple projects and instruments in one cloud-based location.
- Secure, real-time access to decision-quality data anywhere, anytime.
- Simplify the task of filtering data for important results.



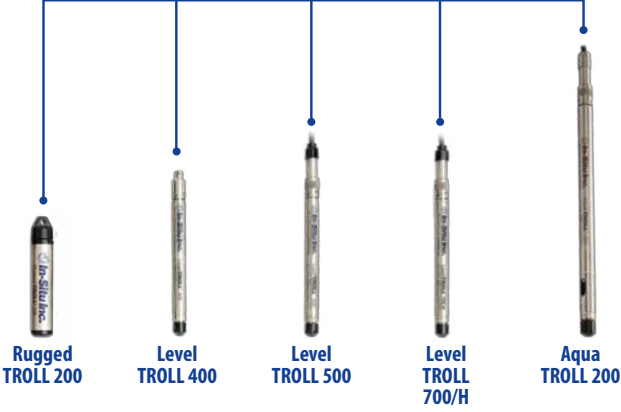
Wireless Telemetry



## Wireless Telemetry:

- Economical and secure wireless monitoring systems for real-time site feedback.
- In-device alarms, plus automated data, barometric pressure compensation, tampering, and malfunction alerts.
- Compact designs for in-well or networking, depending on your unique monitoring deployment.

Instruments



## Water Level Instruments:

- Vented and non-vented data loggers for every project and budget.
- Fully sealed, titanium design for even the harshest environments.
- Simple setup and data retrieval with field-ready connectors and intuitive software.

\*Similar solutions are also available for our Water Quality Instruments.

# Level TROLL® Data Loggers

## Level TROLL® 400 Data Logger



Measures and logs water level, water pressure, and temperature in a maintenance-free system ideal for long-term monitoring at flood-prone or high humidity sites. Sub-1 inch diameter.

- Available in non-vented (absolute) pressure ranges up to 1120 ft (341 m)
- Fully sealed, all titanium construction and sensors
- Flexible communication protocols (4-20 mA, SDI-12, RS-485)
- Low-power batteries last 10+ years

## Level TROLL® 500 Data Logger



Our most popular data logger and suited to a wide variety of projects. Continuous measurements of water level, water pressure, and temperature, as well as automatic atmospheric compensation. Sub-1 inch diameter.

- Available in vented (gauged) pressure ranges up to 1153 ft (351 m)
- Fully sealed, all titanium construction and sensors
- Flexible communication protocols (4-20 mA, SDI-12, RS-485)
- Low-power batteries last 10+ years

## Level TROLL® 700 Data Logger



Premier water level logger featuring higher data resolution, expanded memory, and advanced logging modes for specialized applications. Continuous monitoring of water level, water pressure, and temperature. Sub-1 inch diameter.

- Available in pressure ranges up to 1153 ft (351 m) for vented and 2274 ft (693 m) for non-vented
- Fully sealed, all titanium construction and sensors
- Automatic atmospheric compensation (vented models only)
- Advanced logging modes

## Level TROLL® 700H Data Logger



The most accurate water level data logger on the market, meeting the USGS surface water specification of  $\pm 0.01$  foot. Continuous monitoring of water level, water pressure, and temperature. Sub-1 inch diameter.

- Available in vented (gauged) configuration in pressure ranges up to 35 ft (11 m)
- Automatic atmospheric compensation
- Advanced logging modes
- OSW-Compliant data to meet USGS Office of Surface Water specifications

## BaroTROLL® and Rugged BaroTROLL® Data Loggers



Measures and logs the barometric pressure and temperature data needed to compensate for water level changes due to barometric fluctuations.

- Use the BaroTROLL with non-vented (absolute) Level TROLL 400 and 700, or Aqua TROLL 200
- Use the Rugged BaroTROLL with non-vented (absolute) Rugged TROLL 100 and 200 Data Loggers
- Titanium construction and 10-year internal battery
- Software post-corrects multiple data logger files from a single unit



\*Typical battery life when used within the factory-calibrated temperature range.

# Rugged TROLL® & CTD Data Loggers, and Water Level Meters

## Rugged TROLL® 100 Data Logger



Our most economical option for measuring and logging water level, water pressure, and temperature.

- Available in non-vented (absolute) pressure ranges up to 250 ft (76 m)
- Titanium body with Delrin nose cone and backend
- Ceramic pressure sensor
- Download data via Rugged TROLL Docking Station (sold separately)



## Rugged TROLL® 200 Data Logger



Measures and logs water level, water pressure, and temperature, and features a cabled setup for direct read or telemetry data access.

- Available in non-vented (absolute) pressure ranges up to 250 ft (76 m)
- Titanium body with Delrin nose cone and backend
- Ceramic pressure sensor
- Download data via telemetry system, Rugged TROLL Docking Station, or direct-read cable (sold separately)



## Aqua TROLL® 100 and 200 Data Loggers



Measure and record water level, water pressure, conductivity, and temperature with the Aqua TROLL 200, or only conductivity and temperature with the Aqua TROLL 100. Unique conductivity cell allows for a wide, accurate measurement range in a narrow diameter instrument (sub-1 inch).

- Full range conductivity with optimum accuracy – 5 to 100,000 µS/cm
- Dynamic density compensation on the Aqua TROLL 200
- Copper antifouling conductivity guard available; copper antifouling nose cone also available for the Aqua TROLL 200 only (both sold separately)
- Aqua TROLL 200 is available in pressure ranges up to 1153 ft (351 m) for vented or 1120 ft (341 m) for non-vented



## Virtual HERMIT® Aquifer Testing Kit



Connect multiple wells and program all data loggers at once to conduct step-drawdown tests and constant pump rate tests across an entire well field. Available exclusively through In-Situ Rentals.

- Supports up to 15 wells per system
- Simultaneously configures, starts, displays, steps, or stops all connected data loggers
- Allows data downloads while tests are running
- Uses research-grade Level TROLL 700 Data Loggers



## Water Level Meter 100 and 200

Durable, easy-to-read level meters come standard with static and drawdown modes. Available in lengths up to 600 m (2,000 ft).

- Water Level Meter 100: Economical water level tape with a Kevlar-reinforced polyethylene tape and stainless steel conductors
- Water Level Meter 200: Engineer-grade water level tape with high-tensile steel tape and stainless steel conductors; ASME-certified
- Submersible stainless steel probe is pressure rated up to 500 psi
- Sensitivity dial filters out false signals from falling water



\*Typical battery life when used within the factory-calibrated temperature range.

## Key Features and Accessories



### Antifouling

Specially formulated copper antifouling guard and/or nose cone combats biofouling in coastal environments and high-fouling sites, improving the accuracy of your data and extending the length of deployment by up to six weeks.



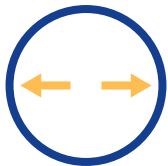
### Internal Battery Life

Internally sealed lithium battery power for frequent fast sampling or long-term deployments. No external power is required, although it is an option (except on Rugged TROLL instruments).



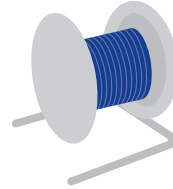
### Internal Memory

Internal 4 MB memory stores up to 250,000 data points, and 2 MB memory stores up to 120,000 data points.



### Narrow Diameter Design

Compact design fits narrow diameter wells. Sub-1 inch diameter instruments measure 0.72 inches (1.83 cm), and sub-2 inch instruments measure 1.03 inches (2.62 cm).



### Rugged Cable and Rugged TROLL Direct-Read Cable Systems

Durable, long-lasting cables come in custom lengths and provide real-time communication. Patented twist-lock connectors provide easy, secure attachment and detachment, protecting your investment.



### Specialized Logging Modes

Advanced logging modes for specialized applications. In addition to linear, linear average, and event, these products also include step linear, fast linear, and true logarithmic modes.



### Telemetry Capable

Get real-time feedback from your instruments with cellular device reporting and in-device alarms from the Tube and Cube Telemetry system. Features include 5+ year battery life, IP68 waterproof rating, optional in-well deployment, automatic barometric compensation, and optional built-in solar panels.

## Additional Accessories



### Tubing

Polyethylene (PE) or Teflon-lined Polyethylene (TLPE) tubing available in 100 or 500 foot lengths. Silicone pump head tubing, size 15; available in 10, 25, and 500 foot (3.04, 7.62, 152.4 m) lengths.



### Bailers

Bailers for straight-forward collection and visual examination of water samples in different environments. Available in PVC, Polyurethane (weighted), and biodegradable models, and in 0.7 x 36 inch and 1.5 x 36 inch sizes.



### Well Caps

Vented well caps and vented locking well caps for 2 or 4 inch wells. Expandable locking well caps for 2, 3, 4, 6, and 8 inch wells.



### Pumps

Sampling, peristaltic, submersible, and portable bladder pumps available for rent through In-Situ Rentals.

**For our full offering of accessories, please visit [www.in-situ.com](http://www.in-situ.com).**