



Level TROLL® Instruments

Level TROLL® 700 Instrument

- Optimized for aguifer characterization
- · Gauged (vented) and absolute (non-vented) instruments
- Linear, fast linear, linear average, event, step linear, and true logarithmic logging modes
- Rugged titanium probe and sensor (OD: 1.83 cm; 0.72 in)

Level TROLL® 500 Instrument

- Ideal for groundwater and surface-water monitoring
- Gauged and absolute instruments
- Linear, fast linear, and event logging modes
- Durable titanium probe and sensor (OD: 1.83 cm; 0.72 in)

Level TROLL® 300 Instrument

- Suitable for fresh water and industrial monitoring
- Absolute instrument
- Linear, fast linear, and event logging modes
- Stainless steel probe and sensor (OD: 2.08 cm; 0.82 in)

Powerful, Accurate, Reliable Performance

Every Application & Budget

- Superior accuracy For guaranteed accuracy under all operating conditions, instruments undergo extensive calibration procedures for pressure and temperature. Each instrument includes a serialized calibration report.
- Telemetry and SCADA integration—Access data when you need it. No adapters or confusing proprietary protocols are required. Outputs include standard Modbus/RS485, SDI-12, and 4-20 mA.
- Low power consumption—Batteries have a typical life of 10 years or 2 million readings. 8-36 VDC input is compatible with external batteries and solar power.
- Intuitive interface—Win-Situ® 5 and Win-Situ® Mobile Software simplify data collection and management. Software features setup wizards, fast data download rates, multiple water level reference options, and more.

Applications

- Aquifer characterization
- Coastal deployments—tide/harbor levels, storm surge systems, and wetlands research
- Construction and mine dewatering
- River, lake, and reservoir monitoring
- Stormwater management

Level TROLL® 300, 500 & 700 Instruments

General	Level TROLL 300	Level TROLL 500	Level TROLL 700	BaroTROLL	
Temperature ranges ¹	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Calibrated: -5-50° C (23-122° F)	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Calibrated: -5-50° C (23-122° F)	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Calibrated: -5-50° C (23-122° F)	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Calibrated: -5-50° C (23-122° F)	
Diameter	2.08 cm (0.82 in)	1.83 cm (0.72 in)	1.83 cm (0.72 in)	1.83 cm (0.72 in)	
Length	22.9 cm (9.0 in)	21.6 cm (8.5 in)	21.6 cm (8.5 in)	21.6 cm (8.5 in)	
Weight	245 g (0.54 lb)	197 g (0.43 lb)	197 g (0.43 lb)	197 g (0.43 lb)	
Materials	Stainless steel body; Delrin® nose cone	Titanium body; Delrin nose cone	Titanium body; Delrin nose cone	Titanium body; Delrin nose cone	
Output options	Modbus/RS485, SDI-12, 4-20 mA	Modbus/RS485, SDI-12, 4-20 mA	Modbus/RS485, SDI-12, 4-20 mA	Modbus/RS485, SDI-12, 4-20 mA	
Battery type & life ²	3.6V lithium; 10 years or 2M readings	3.6V lithium; 10 years or 2M readings	3.6V lithium; 10 years or 2M readings	3.6V lithium; 10 years or 2M readings	
External power	8-36 VDC	8-36 VDC	8-36 VDC	8-36 VDC	
Memory Data records ³ Data logs	1.0 MB 65,000 2	2.0 MB 130,000 50	4.0 MB 260,000 50	1.0 MB 65,000 2	
Log types	Linear, Fast Linear, and Event	Linear, Fast Linear, and Event	Linear, Fast Linear, Linear Average, Event, Step Linear, True Logarithmic	Linear	
Fastest logging rate & Modbus rate	2 per second	2 per second	4 per second	1 per minute	
Fastest SDI-12 & 4-20 mA output rate	1 per second	1 per second	1 per second	1 per second	
Real-time clock	Accurate to 1 second/24-hr period	Accurate to 1 second/24-hr period	Accurate to 1 second/24-hr period	Accurate to 1 second/24-hr period	
Sensor Type/Material	Piezoresistive; stainless steel	Piezoresistive; titanium	Piezoresistive; titanium	Piezoresistive; titanium	
Range	Absolute (non-vented) 30 psia: 10.9 m (35.8 ft) 100 psia: 60.1 m (197.3 ft) 300 psia: 200.7 m (658.7 ft)	Absolute (non-vented) 30 psia: 10.9 m (35.8 ft) 100 psia: 60.1 m (197.3 ft) 300 psia: 200.7 m (658.7 ft) 500 psia: 341.3 m (1120 ft) Gauged (vented) 5 psig: 3.5 m (11.5 ft) 15 psig: 11 m (35 ft) 30 psig: 21 m (69 ft) 100 psig: 70 m (231 ft) 300 psig: 210 m (692 ft) 500 psig: 351 m (1153 ft)	Absolute (non-vented) 30 psia: 10.9 m (35.8 ft) 100 psia: 60.1 m (197.3 ft) 300 psia: 200.7 m (658.7 ft) 500 psia: 341.3 m (1120 ft) 1000 psia: 703 m (2306.4 ft) Gauged (vented) 5 psig: 3.5 m (11.5 ft) 15 psig: 11 m (35 ft) 30 psig: 21 m (69 ft) 100 psig: 70 m (231 ft) 300 psig: 210 m (692 ft) 500 psig: 351 m (1153 ft)	0 to 16.5 psi; 0 to 1.14 bar	
Burst pressure	Maximum 2x range; burst 3x range	Maximum 2x range; burst 3x range	Maximum 2x range; burst 3x range	Vaccum/over-pressure above 16.5 psi damages sensor	
Accuracy @ 15° C⁴	±0.1% full scale (FS)	±0.05% FS	±0.05% FS	±0.1% FS	
Accuracy (FS) ⁵	±0.2% FS	±0.1% FS	±0.1% FS	±0.2% FS	
Resolution	±0.01% FS or better	±0.005% FS or better	±0.005% FS or better	±0.005% FS or better	
Units of measure	Pressure: psi, kPa, bar, mbar, mmHg, inHg, cmH ₂ O, inH ₂ O Level: in, ft, mm, cm, m	Pressure: psi, kPa, bar, mbar, mmHg, inHg, cmH ₂ O, inH ₂ O Level: in, ft, mm, cm, m	Pressure: psi, kPa, bar, mbar, mmHg, inHg, cmH ₂ O, inH ₂ O Level: in, ft, mm, cm, m	Pressure: psi, kPa, bar, mbar, mmHg, inHg, cmH $_2$ O, inH $_2$ O	
Temperature Sensor					
Accuracy & resolution	±0.1° C; 0.01° C or better	±0.1° C; 0.01° C or better	±0.1° C; 0.01° C or better	±0.1° C; 0.01° C or better	
Units of measure	Celsius or Fahrenheit	Celsius or Fahrenheit	Celsius or Fahrenheit	Celsius or Fahrenheit	
Warranty	1 year	2 years	2 years	2 years	
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ro**TROLL**® strument

titanium BaroTROLL asures and logs ometric pressure temperature. Use BaroTROLL in junction with Level OLL Instruments.

n-Situ® Baro Merge™ tware simplifies t-correction of er level data. ometric readings are omatically subtracted n data collected an absolute Level DLL to compensate changes in pressure to barometric tuations.

77 Support

Situ technical support cialists assist with rument setup, lication support, and bleshooting. Call for technical support.

- nperature range for noning liquids
- ical battery life when used n the factory-calibrated erature range.
- ata record = date/time 2 parameters logged (no ping) from device within the ry-calibrated temperature
- oss factory-calibrated sure range
- oss factory-calibrated sure and temperature

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