

Levelogger 5 LTC

Level, Temperature, Conductivity

The Levelogger® 5 LTC logs water level, temperature, and conductivity. It combines a datalogger, 8-year battery, Hastelloy® pressure sensor, temperature detector, and conductivity sensor within a small waterproof housing, 22 mm x 208 mm (7/8" x 8.2"). A baked-on coating using polymerization technology protects the body against corrosion, abrasion and high temperatures. The conductivity sensor is a 4-electrode platinum sensor, with autoranging capabilities. The minimal-maintenance, sealed Levelogger 5 LTC is simple to clean and calibrate, even in the field.



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|-----------------------------|--|
| Level Sensor: | Piezoresistive Silicon with Hastelloy Sensor |
| Ranges: | 5, 10, 20, 30, 100, and 200 m |
| Accuracy: | ±0.05% FS |
| Resolution: | 0.001% FS to 0.0006% FS |
| Units of Measure: | cm, m, ft, psi, kPa, bar (°C, °F) |
| Normalization: | Automatic Temperature Compensation |
| Temp Comp. Range: | 0°C to 50°C |
| Temperature Sensor: | Platinum Resistance Temperature Detector (RTD) |
| Accuracy: | ±0.05°C |
| Resolution: | 0.003°C |
| Conductivity Sensor: | 4-Electrode Platinum |
| Full Range: | 0 – 100,000 µS/cm |
| Calibrated Range: | 50 – 80,000 µS/cm |
| Accuracy: | ±1%: 5,000 µS/cm – 80,000 µS/cm; greater of ±2% or 15 µS/cm: 50 µS/cm – 5,000 µS/cm |
| Resolution: | ±0.1 µS/cm |
| Temp Comp. Range: | 0°C – 50°C |
| Normalization: | Specific Conductance @ 25°C |
| Battery Life: | 8 Years (1 reading every 5 minutes) |
| Clock Accuracy (typical): | ±1 minute/year (-20°C to 80°C) |
| Operating Temperature: | -20°C to 80°C |
| Maximum Readings: | 100,000 sets of readings |
| Memory: | Slate or Continuous |
| Communication: | Optical high-speed: 57,600 bps with USB |
| Size: | 22 mm x 208 mm (7/8" x 8.2") |
| Weight: | 197 grams (6.95 oz) |
| Corrosion Resistance: | Baked-on coating using polymerization |
| Wetted Materials: | Platinum, Delrin®, Viton®, 316L Stainless Steel, Hastelloy, Regulator approved PFAS-free PTFE (inside and out) |
| Sampling Mode: | Linear, Event & User-Selectable with Repeat Mode, Future Start, Future Stop, Real-Time View |
| Measurement Rates: | 2 seconds to 99 hours |
| Barometric Compensation: | Software Wizard and Barologger 5 |

Upgraded Features

- Increased memory: 100,000 sets of data
- More stable communication: single-eye optical, easy to clean, more scratch resistant
- Stronger, robust design: double o-ring seals for two times over pressurization rating
- Better thermistor and conductivity sensitivity: upgraded platinum RTD and conductivity sensor
- Superior protection in harsh conditions: baked-on coating using polymerization—inside and out

User-Friendly Operation

Software Calibration and Data Wizards guide you through conductivity calibration and barometric compensation, ensuring accurate data sets. The Data Wizard also converts conductivity readings to Specific Conductance (@ 25°C).

Levelogger Software allows you to easily program your preferences, download data, and display data in a graph or table format or export to other programs. Real Time View allows immediate viewing of live water level, conductivity, and temperature readings.

Leveloggers are easy to deploy; install with direct read cables or wireline/cord suspension. The Levelogger 5 LTC is SDI-12 compatible using the Solinst SDI-12 Interface Cable.

Download data in the field using the new Field Reader 5, DataGrabber 5 USB data transfer device, or through Bluetooth® using the Levelogger 5 App Interface and your smart device. Integrate the Levelogger 5 LTC with Solinst Telemetry Systems, which use the latest wireless technologies.

Levelogger 5 LTC Applications

- Salt water intrusion and soil salination monitoring
- Plume remediation monitoring and studies
- Leachate monitoring at landfills, mine tailings, waste disposal storage sites, and more
- Agricultural and stormwater runoff monitoring
- Create a historical database for potable water supply monitoring
- Tracer tests

| LTC Models | Full Scale (FS) | Accuracy | Resolution |
|------------------|-------------------|----------------------|------------|
| M5, C80 | 5 m (16.4 ft.) | ± 0.3 cm (0.010 ft.) | 0.001% FS |
| M10, C80 | 10 m (32.8 ft.) | ± 0.5 cm (0.016 ft.) | 0.0006% FS |
| M20, C80 | 20 m (65.6 ft.) | ± 1 cm (0.032 ft.) | 0.0006% FS |
| M30, C80 | 30 m (98.4 ft.) | ± 1.5 cm (0.064 ft.) | 0.0006% FS |
| M100, C80 | 100 m (328.1 ft.) | ± 5 cm (0.164 ft.) | 0.0006% FS |
| M200, C80 | 200 m (656.2 ft.) | ± 10 cm (0.328 ft.) | 0.0006% FS |

Biofoul Screen

When a Levellogger 5 LTC is deployed for an extended period, there is the risk of biofouling on the pressure sensor and/or conductivity cell, which can compromise their readings.

The Biofoul Screen is designed to reduce the unwanted buildup of microorganisms, plants, algae, or organisms such as barnacles and mussels, on the sensors. The Biofoul Screen consists of a Delrin sleeve wrapped with copper wire. Slip onto the sensor end of a Levellogger 5 LTC, where it is held in place by compression fit.

Using the natural anti-fouling characteristics of copper, the Biofoul Screen is an affordable option to lengthen the time a



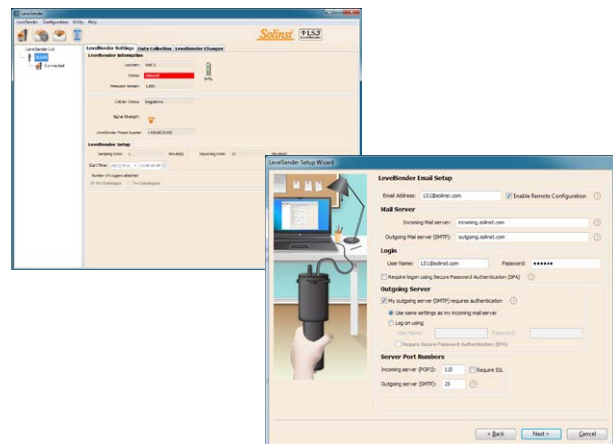
An optional Biofoul Screen provides extra protection for the Levellogger 5 LTC pressure and conductivity sensors in harsh environments.

Levellogger 5 LTC can be deployed. It reduces site visits and time spent cleaning Levelloggers, and improves long-term performance by ensuring accurate sensor measurements.

Levellogger 5 App Interface

The Solinst Levellogger App is designed to communicate to Solinst dataloggers via your smart device. Programming options include start/stop, data downloading, linear and real-time sampling, future start/stop, and GPS coordinates.

The Levellogger 5 App Interface uses Bluetooth wireless technology to connect with your smart device running the Solinst Levellogger App. Use our Levellogger 5 App Interface and a Solinst direct read cable to communicate to a downhole Levellogger and email data files right from the field (see Model 3001 Solinst Levellogger 5 App Interface data sheets).



LevelSender 5 Telemetry System

Instantly add cellular telemetry to your Levellogger 5 LTC by connecting to a Model 9500 LevelSender 5. Send data by email or SMS from your remote stations to your desired location. The LevelSender 5 simplifies your telemetry setup, by working with Solinst direct read cables and is compatible with the full Levellogger Series product line (see Model 9500 LevelSender 5 data sheet).

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