

# LTC Levelogger Junior

Model 3001 Data Sheet

### LTC Levelogger Junior Level, Temperature, Conductivity

The LTC Levelogger Junior logs conductivity, as well as water level and temperature. Like the LT Levelogger Junior Edge, it is easy to transport, program, deploy and retrieve data. It combines a datalogger, 5-year battery, Hastelloy<sup>®</sup> pressure sensor, temperature detector, and conductivity sensor within a small waterproof housing, 7/8" x 7.5" (22 mm x 190 mm).

The conductivity sensor is a 4-electrode platinum sensor, with auto-ranging capabilities. The minimal maintenance, sealed LTC Levelogger Junior is simple to clean and calibrate, even in the field.

Using Levelogger Series Software, it displays conductivity, temperature, and temperature-compensated water level. Memory is non-volatile and stores up to 16,000 sets of readings. Measurements are linear, in any interval between 5 seconds and 99 hours.

See the Model 3001 Edge data sheet for more information on the Levelogger Series of dataloggers, accessories and software.

| Technical Specifications |  |
|--------------------------|--|
| Level Sensor:            | Piezoresistive Silicon with Hastelloy Sensor               |
| Ranges:                  | F30/M10, F100/M30  |
| Accuracy:                | 0.1% FS  |
| Normalization:           | Automatic Temp Compensation                                |
| Temperature Sensor:      | Platinum Resistance Temperature Detector (RTD)             |
| Accuracy:                | ± 0.1°C  |
| Resolution:              | 0.1°C  |
| Temp Compensation Range: | 10°C to 40°C   |
| Conductivity Sensor:     | 4-Electrode Platinum                                       |
| Full Range:              | 0 - 80,000 μS/cm   |
| Calibrated Range:        | 500 - 50,000 μS/cm   |
| Accuracy:                | 2% of reading or 20 μS/cm                                  |
| Resolution:              | 1 μS   |
| Temp Compensation Range: | 0°C to 40°C  |
| Normalization:           | Specific Conductance @ 25°C                                |
| General:                 |  |
| Battery Life:            | 5 Years (5 minute sampling rate)                           |
| Clock Accuracy:          | ± 1 minute/year from 0 to 40°C                             |
| Operating Temperature:   | - 20°C to 80°C   |
| Memory:                  | Non-volatile EEPROM, FRAM back-up                          |
| Maximum Readings:        | 16,000 sets of readings                                    |
| Communication:           | Optical Infra-red: USB, RS232, SDI-12                      |
| Size:                    | 7/8" x 7.5" (22 mm x 190 mm)                               |
| Weight:                  | 7.05 oz. (200 grams)                                       |
| Wetted Materials:        | Platinum, Hastelloy, 316L Stainless Steel, Delrin®, Viton® |
| Sampling Mode:           | Linear, (5 sec to 99 hrs), Real Time View,<br>Future Start |
| Barometric Compensation: | Software Wizard and Barologger Edge                        |



**Features** 

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Low Cost

- Corrosion resistant Hastelloy pressure sensor
- Three measurements in one probe
- Single or multi-point calibration
- Basic and advanced data compensation options

### **User-Friendly Operation**

Calibration and Data Wizards guide you through the calibration process and barometric compensation, to provide corrected data. 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. The LTC Levelogger Junior can also be used with the Solinst Levelogger App.

The Real Time View option allows immediate viewing of live conductivity, water level and temperature readings. Leveloggers are easy to deploy; installation can be with direct read cables or wireline/cord suspension, avoiding the use of vented cables.

The LTC Levelogger Junior is SDI-12 compatible, can communicate with a Leveloader data transfer device, and is able to integrate into a Solinst Telemetry System (see Model 9100/9200 data sheet).

## **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
- Tracer tests





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### **Biofoul Screen**

When an LTC Levelogger Junior 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 instrument sensors. The Biofoul Screen consists of a Delrin sleeve wrapped with copper wire. It simply slips onto the sensor end of an LTC Levelogger Junior, 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 an LTC Levelogger Junior can be deployed. It reduces site visits and time spent cleaning Leveloggers, and improves long-term performance by ensuring accurate sensor measurements.



### Levelogger App & Interface

The Solinst Levelogger App is designed to communicate to Solinst dataloggers wirelessly! Programming options include start/stop, data downloading, linear and real-time sampling, future start/stop, and GPS coordinates.

The Levelogger App Interface uses wireless Bluetooth® technology to communicate to your Apple® smart device. Use our Levelogger App Interface and a Solinst Direct Read Cable, to communicate to a downhole Levelogger and email data files right from the field (see Model 3001 Solinst Levelogger App & Interface data sheet).

#### Convenient and Intuitive

- Free to download from the App Store<sup>SM</sup>
- Linear & real-time sampling options











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