

## Levellogger Junior Edge

Model 3001

The Levellogger Junior Edge provides an inexpensive alternative for measuring groundwater and surface water levels and temperature. The Levellogger Junior Edge combines pressure and temperature sensors, a datalogger, and 5-year battery in one compact 7/8" x 5.6" (22 mm x 142 mm) stainless steel housing.

The Levellogger Junior Edge records absolute pressure using the same durable Hastelloy pressure sensor as the Levellogger Edge. The Hastelloy sensor has excellent performance in harsh environments with better temperature compensation and thermal response time, and can withstand 2 times overpressure without permanent damage.

The Levellogger Junior Edge features FRAM memory, with an increased capacity of 40,000 sets of temperature and water level data points. Readings are linear at a user-defined interval between 0.5 second to 99 hours. Accuracy is 0.1% FS, with 20 bit resolution and lifetime factory calibration.

If greater accuracy, more sampling options, or wider depth ranges are required, the Solinst Levellogger Edge has the functionality to suit your application (see Model 3001 Data Sheet). For conductivity datalogging, Solinst also offers the LTC Levellogger Junior (see Model 3001 LTC Levellogger Junior Data Sheet).



### Features

- Low cost
- 5 year battery life
- Accuracy of 0.1% FS
- Increased memory to 40,000 data points
- New robust Hastelloy pressure sensor
- Compatible with Solinst Telemetry Systems and SDI-12

### Operation

Programming the Levellogger Junior Edge is the same as with the Levellogger Edge. An Optical Reader or PC Interface Cable connects the Levellogger to a laptop or desktop PC. The intuitive Levellogger Software automatically detects the type of Levellogger that is connected. Programming, downloading, data management and export are intuitive tasks. The Real Time View option allows immediate viewing of live water level and temperature readings, independent of the scheduled programming intervals.

The Levellogger Junior Edge outputs temperature and temperature compensated water level readings. Using the Data Compensation Wizard in the Levellogger Software, you can barometrically compensation multiple Levellogger Junior Edge files simultaneously, with just one Barologger Edge file.

The Levellogger Junior Edge is compatible with Levellogger Series accessories, including the Levellogger Gold data transfer device, SDI-12 Interface Cable, and Solinst Telemetry Systems (see Model 9100/9200 Data Sheet).





These compact dataloggers are straightforward to deploy. Installation can be with direct read cables, by stainless steel wireline or Kevlar® cord suspension, with the option of using Solinst 2" Locking Well Caps.

### Applications

- Monitoring water levels in wells and surface water
- Pump and slug tests
- Reservoir and stormwater runoff management
- Watershed and drainage basin monitoring
- Stream gauging, lake and wetland monitoring
- Tank level measurement

### Technical Specifications

|                                 |   |
|---------------------------------|---|
| <b>Level Sensor:</b>            | Piezoresistive Silicon with Hastelloy Sensor    |
| Ranges:                         | F15/M5, F30/M10                                 |
| Accuracy (typical):             | 0.1% FS   |
| Units of Measure:               | cm, m, ft, psi, kPa, mBar, °C, °F               |
| Resolution:                     | 20 Bit Resolution                               |
| Normalization:                  | Automatic Temp Compensation                     |
| Temp Compensation Range:        | 0°C to 40°C                                     |
| <b>Temperature Sensor:</b>      | Platinum RTD                                    |
| Accuracy:                       | ± 0.1°C   |
| Resolution:                     | 0.1°C   |
| <b>Battery Life:</b>            | 5 Years   |
| <b>Operating Temperature:</b>   | - 20°C to 80°C                                  |
| <b>Clock Accuracy:</b>          | ± 1 minute/year (- 20°C to 80°C)                |
| <b>Memory:</b>                  | FRAM  |
| <b>Maximum Readings:</b>        | 40,000 sets of readings                         |
| <b>Communication:</b>           | Optical Infrared to USB, RS232, or SDI-12       |
| <b>Size:</b>                    | 7/8" x 5.6" (22 mm x 142 mm)                    |
| <b>Weight:</b>                  | 4.2 oz. (119 grams)                             |
| <b>Wetted Materials:</b>        | 316 Stainless Steel, Delrin®, Viton®, Hastelloy |
| <b>Sampling Mode:</b>           | Linear and Real Time View                       |
| <b>Measurement Rates:</b>       | 0.5 sec to 99 hours                             |
| <b>Barometric Compensation:</b> | Software Wizard and Barologger Edge             |

| Model 3001                       | <br> | <br> |
|----------------------------------|--|--|
|                                  | Levelogger Edge  | Levelogger Junior Edge   |
| Backwards Compatible             | YES (with limitations)<br>See <a href="http://www.solinst.com/Downloads/">http://www.solinst.com/Downloads/</a>  | YES (with limitations)<br>See <a href="http://www.solinst.com/Downloads/">http://www.solinst.com/Downloads/</a>  |
| Warranty                         | 3 Years  | 1 Year   |
| Pressure Transducer              | Piezoresistive Silicon with Hastelloy Sensor   | Piezoresistive Silicon with Hastelloy Sensor   |
| Calibrated Ranges:               | 15, 30, 65, 100, 300 ft, Atmospheric Barologger<br>5, 10, 20, 30, 100 m, Atmospheric Barologger  | 15, 30 ft<br>5, 10 m   |
| Accuracy (typical)               | ± 0.05% FS (Barologger Edge ±0.05 kPa)   | ± 0.1% FS  |
| Resolution                       | 24 Bit Resolution  | 20 Bit Resolution  |
| Normalization                    | Automatic Temperature Compensation   | Automatic Temperature Compensation   |
| Calibration                      | Factory – Lifetime calibration   | Factory – Lifetime calibration   |
| Response Time<br>(90% Thermal Δ) | 1 minute/10°C change   | 1 minute/1°C change  |
| Temp Comp Range                  | 0 to +50°C (Barologger Edge -10 to +50°C)  | 0 to +40°C   |
| Over-pressure Range              | 2 X  | 2 X  |
| Temperature Sensor               | Platinum RTD   | Platinum RTD   |
| Temperature Accuracy             | ± 0.05°C   | ± 0.1°C  |
| Temperature Resolution           | 0.003°C  | 0.1°C  |
| Operating Temp Range             | -20 to +80°C   | -20 to +80°C   |
| Clock Accuracy                   | ± 1 minute / year (-20°C - +80°C)  | ± 1 minute / year (-20°C - +80°C)  |
| Battery Life                     | 10 Years (based on 1 reading/minute)   | 5 Years (based on 1 reading/minute)  |
| Size                             | 7/8" x 6.25" (22 mm x 159 mm)  | 7/8" x 5.6" (22 mm x 142 mm)   |
| Weight                           | 4.6 oz. (129 grams)  | 4.2 oz. (119 grams)  |
| Memory                           | 40,000 readings in FRAM memory, or up to 120,000 readings using data compression option  | 40,000 readings in FRAM memory, no data compression option   |
| Communication Speed              | 9600 bps, 38,400 bps with HS USB Optical Reader  | 9600 bps   |
| Com Interface                    | Optical infra-red: USB, RS232, SDI-12  | Optical infra-red: USB, RS232, SDI-12  |
| Memory Modes                     | Continuous or Slate  | Slate  |
| Logging Rates                    | 0.125 sec to 99 hours  | 0.5 sec to 99 hours  |
| Logging Modes                    | Linear, Event & User-Selectable Schedules with Repeat Mode, Future Start, Future Stop, Real Time View  | Linear, Real Time View   |
| Barometric Compensation          | Barologger Edge  | Barologger Edge  |
| Corrosion Resistance             | Titanium based PVD coating and Hastelloy Sensor  | 316 L Stainless Steel and Hastelloy Sensor   |
| Other Wetted Materials           | Delrin, Viton, Hastelloy, 316L Stainless Steel   | Delrin, Viton, Hastelloy, 316L Stainless Steel   |
| Direct Read Capability           | Yes  | Yes  |
| Leveloader Compatible            | Yes (ensure the latest firmware is installed)  | Yes (ensure the latest firmware is installed)  |