

## Levellogger Junior

Model 3001

The Levellogger Junior provides an inexpensive alternative for measuring groundwater and surface water levels. It combines a datalogger, temperature sensor, pressure transducer, and 5-year battery, in a small, maintenance free, waterproof stainless steel housing.

The Levellogger Junior features a non-volatile memory, with a capacity of 32,000 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 a lifetime factory calibration.

If greater accuracy, sampling options, or ranges are required, the Solinst Levellogger Gold 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).

Compatible with Levellogger Gold software and accessories, the Levellogger Junior is also SDI-12 compatible, can communicate using a Levellogger Gold data transfer unit, and is able to integrate into Solinst Telemetry Systems. (See Model 9100 and 9200 Data Sheets)



### Features

- Low cost
- 5 year battery life
- 32,000 data points
- Accuracy of 0.1% FS
- Real Time View
- Compatible with Levellogger Gold Series software and accessories

### Operation

Programming the Levellogger Junior is the same as with the Levellogger Gold. An Optical Reader or PC Interface Cable connects the Levellogger to a laptop or desktop PC. The intuitive Levellogger Gold Software automatically detects the type of Levellogger that is connected. Programming, downloading, data management and export are easy. The Real Time View option allows immediate viewing of live water level and temperature readings. These compact dataloggers are very easy to deploy. Installation can be with direct read cables or by stainless steel wireline or Kevlar® cord suspension, avoiding the use of vented cables. (See Model 3001 Data Sheet.)

The Levellogger Junior outputs temperature and compensated water level readings. The Barologger Gold and Levellogger software allow easy barometric compensation.





The Levellogger Junior also features helpful utilities such as self-test capability, a robust, non-volatile EEPROM memory and FRAM back-up memory for increased data integrity, also the ability to upgrade firmware for increased function and features.

### Applications

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

#### Technical Specifications

<b>Level Sensor:</b>	Piezoresistive Silicon in 316L SS
<b>Ranges:</b>	F15/M5, F30/M10
<b>Accuracy (typical):</b>	0.1% FS
<b>Resolution:</b>	M5/F15 - 0.028%, F30/M10 - 0.021%
<b>Normalization:</b>	Automatic Temp Compensation
<b>Temperature Sensor:</b>	Platinum RTD
<b>Accuracy:</b>	± 0.1°C
<b>Resolution:</b>	0.1°C
<b>Temp Compensation Range:</b>	- 10°C to 40°C
<b>Battery Life:</b>	5 Years
<b>Clock Accuracy:</b>	± 1 minute/year
<b>Operating Temperature:</b>	- 20°C to 80°C
<b>Memory:</b>	Non-volatile EEPROM, FRAM back-up
<b>Maximum # Readings:</b>	32,000 sets of readings
<b>Communication:</b>	Optical Infra-Red to USB or RS232
<b>Size:</b>	7/8" x 5.5" (22 mm x 140 mm)
<b>Weight:</b>	154 g (5.4 oz)
<b>Wetted Materials:</b>	316L Stainless Steel, Delrin®, Viton®, Buna-N
<b>Sampling Mode:</b>	Linear, SDI-12, Real Time View (from 0.5 sec to 99 hrs)
<b>Barometric Compensation:</b>	Software Wizard and Barologger Gold

Model 3001	 	 
	Levellogger Gold	Levellogger Junior
<b>Backward Compatible</b>	YES See <a href="http://www.solinst.com/Downloads/">http://www.solinst.com/Downloads/</a>	YES See <a href="http://www.solinst.com/Downloads/">http://www.solinst.com/Downloads/</a>
<b>Warranty</b>	3 Years	1 Year
<b>Pressure Transducer</b>	Piezoresistive Silicon in 316L Stainless Steel	Piezoresistive Silicon in 316L Stainless Steel
Calibrated Ranges:	15, 30, 65, 100, 300 ft, Atmospheric Barologger 5, 10, 20, 30, 100 m, Atmospheric Barologger	15, 30 ft 5, 10 m
Accuracy (typical)	0.05% FS $\pm$ 0.010, 0.016, 0.032, 0.064, 0.328 ft ( $\pm$ 0.3, 0.5, 1, 1.5, & 5 cm) Barologger: $\pm$ 0.003 ft (0.1 cm)	0.1% FS $\pm$ 0.02, 0.03 ft ( $\pm$ 0.5, 1 cm)
Resolution	M5/F15: 0.001 % FS, Other Ranges: 0.0006 % FS, Baro: 0.002% FS	M5/F15: 0.028 % FS M10/F30: 0.021 % FS
Calibration	Factory – Lifetime calibration	Factory – Lifetime calibration
Temp Comp Range	-10 to +40°C	-10 to +40°C
<b>Temperature Sensor</b>	Platinum RTD	Platinum RTD
Temperature Accuracy	$\pm$ 0.05°C	$\pm$ 0.1°C
Temperature Resolution	0.003°C	0.1°C
Operating Temp Range	-20 to +80°C	-20 to +80°C
<b>Clock Accuracy</b>	$\pm$ 1 minute / year	$\pm$ 1 minute / year
<b>Battery Life</b>	10 Years (based on 1 reading/minute)	5 Years (based on 1 reading/minute)
<b>Size</b>	7/8" x 6" (22 mm x 154 mm)	7/8" x 5.5" (22 mm x 140 mm)
<b>Weight</b>	6.3 oz (179 grams)	5.4 oz (154 grams)
<b>Memory</b>	40,000 Readings of Level and Temperature Superior Reliability EEPROM Memory with redundant backup of last 1200 logs	32,000 Readings of Level and Temperature Superior Reliability EEPROM Memory with redundant backup of last 1200 logs
<b>Logging Rates</b>	0.5 sec to 99 hours	0.5 sec to 99 hours
<b>Logging Modes</b>	Linear, Event & User-Selectable Schedules with 30 items, each with Sec, Min, Hours, Days or Weeks duration. SDI-12, Real Time View	Linear, SDI-12, Real Time View
<b>Barometric Compensation</b>	High accuracy, air-only, Barologger Gold	Use Barologger Gold
<b>Altitude Input</b>	Range = -980 to 16,400 ft (-300 to 5,000 m)	Range = -980 to 16,400 ft (-300 to 5,000 m)
<b>Corrosion Resistant Coating</b>	Zirconium Nitride (ZrN) PVD	None
<b>Other Wetted Materials</b>	Delrin <sup>®</sup> , Viton <sup>®</sup> , 316 L Stainless Steel, Buna-N	Delrin, Viton, 316 L Stainless Steel, Buna-N
<b>Direct Read Capability</b>	Yes	Yes
<b>Levellogger Gold Compatible</b>	Yes	Yes
<b>Offset</b>	Allows input in range equal to Altitude Range = -980 to 16,400 ft (-300 to 5,000 m)	Allows input in range equal to Altitude Range = -980 to 16,400 ft (-300 to 5,000 m)