

Levelogger Junior

Model 3001

The Levelogger® Junior is the newest addition to the Levelogger Family. The Levelogger Junior provides an inexpensive alternative for measuring groundwater and surface water levels. It combines a data logger, temperature sensor, pressure transducer, and 5-year battery, in a small, maintenance free, waterproof stainless steel housing.

The Levelogger 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 seconds to 99 hours. Accuracy is 0.1% FS, with a lifetime factory calibration.

If greater accuracy, sampling options, or ranges are required, the Solinst Levelogger Gold has the functionality to suit your application. (For more details, see Model 3001 Data Sheet.)

Compatible with Levelogger Gold software and accessories, the Levelogger Junior is also SDI-12 compatible, can communicate using a Leveloader Gold data transfer unit, and is able to integrate into Solinst Telemetry Systems.



Features

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

Operation

Programming the Levelogger Junior is the same as with the Levelogger Gold. An Optical Reader or PC Interface Cable connects the Levelogger to a laptop or desktop PC. The intuitive Levelogger Gold Software automatically detects the type of Levelogger 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 data loggers are very easy to deploy. Installation can be with direct read cables or by wire line suspension, avoiding the use of vented cables. (See Model 3001 Data Sheet.)

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



The Levelogger Junior also features helpful utilities such as self-test capability, a robust 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

Level Sensor:	Piezoresistive Silicon in 316L SS
Ranges:	F15/M5, F30/M10
Accuracy (typical):	0.1% FS
Resolution:	0.028%, 0.021%
Normalization:	Automatic Temp Compensation
Temperature Sensor:	Platinum RTD
Accuracy:	± 0.1°C
Resolution:	0.1°C
Temp Compensation Range:	- 10°C to 40°C
Response Time:	3 to 5 minutes
Battery Life:	5 Years
Clock Accuracy:	± 1 minute/year
Operating Temperature:	- 20°C to 80°C
Memory:	Non-volatile EEPROM, FRAM back-up
Maximum # Readings	32,000 sets of readings
Communication:	Optical Infra-Red to USB or RS232
Size:	7/8" x 5.5" (22 mm x 140 mm)
Weight:	154 g (5.4 oz)
Wetted Materials:	316L Stainless Steel, Delrin®, Viton®
Sampling Mode:	Linear, SDI-12, Real Time View (from 0.5 sec to 99 hrs)
Barometric Compensation:	Software Wizard and Barologger Gold

Model 3001	 CE WEEE Levelogger Gold	 CE WEEE Levelogger Junior
Backward Compatible	YES See http://www.solinst.com/Downloads/	YES See http://www.solinst.com/Downloads/
Warranty	3 Years	1 Year
Pressure Transducer	Piezoresistive Silicon in 316L Stainless Steel	Piezoresistive Silicon in 316L Stainless Steel
Calibrated Ranges:	15, 30, 60, 100, 300 ft, Atmospheric Barologger 5, 10, 20, 30, 100 m, Atmospheric Barologger	15, 30 ft 5, 10 m
Accuracy (typical)	0.05% FS ± 0.010, 0.016, 0.032, 0.064, 0.328 ft. (± 0.3, .5, 1, 1.5, & 5 cm) Barologger: ± 0.003 ft. (0.1 cm)	0.1% FS ± 0.02, 0.03 ft (± 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
Response Time (90% Thermal Δ)	< 1 minute	3 to 5 minutes
Temp Comp Range	-10 to +40°C	-10 to +40°C
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	± 1 minute / year
Battery Life	10 Years (based on 1 reading/minute)	5 Years (based on 1 reading/minute)
Size	7/8" x 6" (22 mm x 154 mm)	7/8" x 5.5" (22 mm x 140 mm)
Weight	6.3 oz (179 grams)	5.4 oz (154 grams)
Memory	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
Logging Rates	0.5 sec to 99 hours	0.5 sec to 99 hours
Logging Modes	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
Barometric Compensation	High accuracy, air-only, Barologger Gold	Use Barologger Gold
Altitude Input	Range = -980 to 16,400 ft. (-300 to 5,000 m)	Range = -980 to 16,400 ft. (-300 to 5,000 m)
Corrosion Resistant Coating	Zirconium Nitride (ZrN) PVD	None
Other Wetted Materials	Delrin®, Viton®, 316 L Stainless Steel	Delrin, Viton, 316 L Stainless Steel
Direct Read Capability	Yes	Yes
Levelogger Gold Compatible	Yes	Yes
Offset	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)