Model 3250 Data Sheet



LevelVent Water Level Datalogger

Model 3250

The Solinst LevelVent is a vented version of our popular Levelogger[®]. The highly-accurate datalogger is designed to record water level and temperature measurements during shallow groundwater and surface water deployments.

The LevelVent logger contains pressure and temperature sensors, a battery, FRAM memory for up to 120,000 data logs*, and hydrophobic filter within a 7/8" x 7" (22 mm x 178 mm) stainless steel housing.

The LevelVent uses a gauged pressure transducer; it is open to the atmosphere via a vented cable to the wellhead. The compact LevelVent wellhead is designed to fit in a Solinst 2" Well Cap Assembly, and provides easy connection for communication accessories.

The vented cable and Solinst LevelVent logger are protected from moisture by permanent, built-in desiccants and hydrophobic filters in the logger and the wellhead.

The vented pressure transducer is made of Hastelloy $^{\$}$, making it extremely durable and accurate in a wide range of temperature and monitoring conditions. The sensor provides an accuracy of 0.05% FS, and can withstand 2 times over-pressure without permanent damage.

LevelVent Applications

- Ideal for shallow deployment: up to 65 ft (20 m) submergence
- Aquifer characterization: pumping tests, slug tests, etc.
- Stream gauging, lake, reservoir and dam management
- Watershed, drainage basin and recharge monitoring
- Stormwater and runoff monitoring
- Water supply and tank level measurement
- Long-term water level monitoring in wells and surface water

Vented Datalogger Advantages

- Continuous, reliable water level data for longterm monitoring projects
- No barometric compensation required, saving data processing time
- Instant water level data for real-time aquifer test results



LevelVent Programming & Communication

The LevelVent is programmed and data downloaded using Solinst Levelogger Software and a USB PC Interface Cable. It can also be used with the Solinst Levelogger App and Interface, and DataGrabber. Both accessories and PC Interface Cable conveniently connect directly to the LevelVent wellhead.

For deeper, hard to access applications, or areas that are prone to flooding, the Levelogger Series of absolute pressure water level dataloggers are also options (see Model 3001 Levelogger Edge Data Sheet).

LevelVent Features

- Gauged pressure sensor for highly-accurate water level measurements: 0.05% FS
- Compact wellhead makes deployment simple using a Solinst 2" Well Cap Assembly
- Communication cables and accessories connect directly to the wellhead
- Long-lasting battery included in logger
- Built-in hydrophobic filters and desiccants—no need to replace, reduces maintenance
- Use with Solinst software for multiple logging options including linear, event, scheduled and real-time view

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*When programmed in compressed linear mode. See User Guide for details





LevelVent Specifications

LevelVent Logger

Level Sensor: Piezoresistive Silicon with Hastelloy Sensor

Accuracy: $\pm 0.05\%$ FS Typical Stability of Readings: Superior, low noise

Units of Measure: m, cm, ft., psi, kPa, bar, °C, °F

Normalization: Automatic Temperature Compensation

Temp. Comp. Range: 0° to 50°C

Temperature Sensor: Platinum Resistance Temperature Detector (RTD)

Operating Temperature: -20°C to 80°C

Temp. Sensor Accuracy: ± 0.05°C

Temp. Sensor Resolution: 0.003°C

Battery Life Estimate: 10 Years — based on 1 reading/minute

Clock Accuracy: ± 1 minute/year (-20°C to 80°C)

Thermal Response time: 3-5 minutes

Maximum # Readings: 40,000 sets of readings in non-volatile FRAM

memory (up to 120,000 in compressed mode)

Memory: Slate and Continuous
Communication: 9600 bps Solinst USB

Size: 7/8" x 7" (22 mm x 178 mm)

Weight: 4.6 oz. (129 grams)

Wetted Materials: Delrin®, Viton®, 316L stainless steel,

Hastelloy

Sampling Modes: Linear, Event & User-Selectable with Repeat

Mode, Future Start, Future Stop, Real-Time

view

Measurement Rates: 1/8 sec to 99 hrs

Barometric Automatic

Compensation:

Models	Full Scale (FS)	Accuracy
M5	5 m (16.4 ft)	± 0.3 cm (0.010 ft)
M10	10 m (32.8 ft)	± 0.5 cm (0.016 ft)
M20	20 m (65.6 ft)	± 1 cm (0.032 ft)

LevelVent Wellhead

Materials: Black Delrin, 316 stainless steel, Viton

Dimensions: 1.2" x 3.0" (30 mm x 76 mm)

Operating Temperature: -20°C to 80°C

IP Rating: IP 64 (dust and splash proof)

LevelVent Vented Cable Options

LevelVent vented cable assemblies are available in custom lengths of up to 500 feet.

Vented cables contain communication wires, as well as a vent tube running the length of the cable. Vented cables provide direct read communication from the LevelVent logger to the wellhead. The vent tube and wires are jacketed in polyurethane, providing durability and protection.

The vented cables are easily and securely connected to the LevelVent logger and wellhead, using stainless steel twist connections. A 2" Well Cap Assembly and hanger bracket are included to support the wellhead and vented cable when deployed.

LevelVent Vented Cable

Wetted Materials: Polyurethane, 316 stainless steel, Viton

Diameter: Cable: 0.32" (8 mm),

Connectors: 0.86" (22 mm)

Lengths: 1 to 500 ft

Max. Bend Radius: 1" (25 mm)

Operating Temperature: -20°C to 80°C

Solinst Levelogger App & Levelogger App Interface

The Levelogger App Interface uses Bluetooth® technology to connect your LevelVent to your smart device. With the Solinst Levelogger App, you can download data, view real-time data, and program your dataloggers (see Model 3001 Levelogger App & Interface data sheets).









DataGrabber™

The DataGrabber is a field-ready data transfer device that allows you to copy data from a LevelVent onto a USB flash drive key, with one push-button. The DataGrabber is compact and very easy to transport.



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