



LevelVent 5 Water Level Datalogger

Model 3250

The Solinst LevelVent 5 is a vented version of our popular Levellogger®. The highly-accurate datalogger is designed to record water level and temperature measurements during shallow groundwater and surface water deployments.

The LevelVent 5 logger contains pressure and temperature sensors, a battery, memory for up to 150,000 data logs, and hydrophobic filter within a 22 mm x 173 mm (7/8" x 6.8") stainless steel housing with a corrosion-resistant coating.

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 5 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 5 Applications

- Ideal for shallow deployment: up to 20 m (65 ft) 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 long-term monitoring projects
- No barometric compensation required, saving data processing time
- Instant water level data for real-time aquifer test results



LevelVent 5 Programming & Communication

The LevelVent 5 is programmed and data downloaded using Solinst Levellogger Software and a PC Interface Cable. It can also be used with the Solinst Levellogger 5 App Interface, SRU and DataGrabber 5. All accessories and PC Interface Cable conveniently connect directly to the LevelVent 5 wellhead.

Integrate the LevelVent 5 with Solinst Telemetry Systems, which use the latest wireless technologies. The LevelVent is also compatible with SDI-12 and MODBUS networks by use of a Solinst SDI-12/MODBUS Interface Cable.

For deeper, hard to access applications, or areas that are prone to flooding, the Levellogger 5 Series of absolute pressure water level dataloggers are also options (see Model 3001 Levellogger 5 Series Data Sheet).

LevelVent 5 Features

- Corrosion and abrasion-resistant coating baked-on using polymerization technology
- 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

LevelVent 5 Logger Specifications

| | |
|----------------------------|--|
| Level Sensor: | Piezoresistive Silicon with Hastelloy Sensor |
| Accuracy: | ± 0.05% FS Typical |
| Stability of Readings: | Superior, low noise |
| Resolution: | 0.001% FS to 0.0006% FS |
| 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 (typical): | ± 1 minute/year (-20°C to 80°C) |
| Maximum # Readings: | 150,000 sets of readings |
| Memory: | Slate and Continuous |
| Communication: | 9600 bps Solinst USB, SDI-12, MODBUS |
| Size: | 22 mm x 173 mm (7/8" x 6.8") |
| Weight: | 190 grams (6.7 oz) |
| Corrosion Resistance: | Baked-on coating using polymerization technology (inside and out) |
| Wetted Materials: | Delrin®, Viton®, Polyurethane (TPU boot) 316L stainless steel, Hastelloy, PFAS-free PTFE coating |
| Sampling Modes: | Linear, User-Selectable with Repeat Mode, & Event, Future Start, Future Stop, Real-Time View |
| Measurement Rates: | 1/8 sec to 99 hrs |
| Barometric Compensation: | Automatic |

| Models | Full Scale (FS) | Accuracy | Resolution |
|------------|-----------------|---------------------|------------|
| M5 | 5 m (16.4 ft) | ± 0.3 cm (0.010 ft) | 0.001% FS |
| M10 | 10 m (32.8 ft) | ± 0.5 cm (0.016 ft) | 0.0006% FS |
| M20 | 20 m (65.6 ft) | ± 1 cm (0.032 ft) | 0.0006% FS |

LevelVent 5 Vented Cable Options

Solinst LevelVent 5 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 5 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 5 logger and wellhead, using twist connections. A 2" Well Cap Assembly and hanger bracket are included to support the wellhead and vented cable when deployed.

LevelVent 5 Vented Cable Specifications

| | |
|------------------------|--|
| Wetted Materials: | Polyurethane, Nickel plated Brass, Viton |
| Diameter: | Cable: 8 mm (0.32") Connectors: 20 mm (0.79") |
| Lengths: | 1 to 500 ft |
| Max. Bend Radius: | 25 mm (1") |
| Operating Temperature: | -20°C to 80°C |

LevelVent 5 Wellhead Specifications

| | |
|------------------------|---|
| Materials: | Black Delrin, Nickel plated Zinc, Viton |
| Dimensions: | 30 mm x 76 mm (1.2" x 3.0") |
| Operating Temperature: | -20°C to 80°C |
| IP Rating: | IP 64 (dust and splash proof) |

Versatile Submersible Water Level Transmitter

Solinst also offers the Model 301 Water Level Temperature Sensor for communication using MODBUS, SDI-12, or 4-20mA interchangeable as needed. It provides continuous, stable water level and temperature transmission with options for vented and absolute pressure sensor setups. The Water Level Temperature Sensor is easy to integrate into existing monitoring systems, e.g. SCADA or PLC, and can be used to measure hydrostatic liquid levels long-term in industrial, municipal, and environmental applications (see Model 301 WLT Sensor data sheet).

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Telemetry Applications



Integrate the LevelVent 5 with Solinst Telemetry Systems, which use the latest wireless technologies.

Solinst Levellogger 5 App Interface

The Levellogger 5 App Interface uses *Bluetooth®* technology to connect your LevelVent 5 to your smart device. With the Solinst Levellogger App, you can download data, view real-time data, and program your dataloggers (see Model 3001 Levellogger 5 App Interface data sheets).



DataGrabber 5

The DataGrabber 5 is a field-ready data transfer device that allows you to copy data from a LevelVent 5 onto a USB flash drive key, with one push-button. The DataGrabber 5 is compact and very easy to transport.

