Rainlogger

Model 3002

The Rainlogger is a data logger designed to record the tips of a standard tipping-bucket rain gauge with a reed switch output. Compact and waterproof, this durable field unit offers long-term reliability with a battery that lasts up to 10 years.

The event time stamp and total rainfall per time period is logged in non-volatile memory, which holds up to 60,000 readings. Sampling is event based, as the Rainlogger records and saves each tip of the tipping-bucket as it happens.

Detailed Data

Levelogger customers can add rainfall data to their water level monitoring networks using the intuitive Levelogger Software. The Rainlogger provides easy incorporation of precipitation data into existing Levelogger data. Rainfall data can allow correlation between precipitation events and changes in groundwater or surface water levels.

The Rainlogger is compatible with all Solinst Levelogger communication and deployment accessories. Logged data can be downloaded direct to a PC or to a hand-held Leveloader. This versatile logger has the ability to integrate into a Solinst Telemetry System and has the option to communicate using SDI-12 protocol (see Model 9100/9200 and 3001 Data Sheets).

Technical Specifications

Battery Life	10 years (logging 2 parameters/10 minutes)
Clock Accuracy	+/- 1 minute/year
Operating Temperature	-20°C to 80°C
Maximum # Readings	60,000 readings
Memory	Non-volatile EEPROM, FRAM back-up
Communication	Optical infra-red to RS232 or USB
Sampling Mode	Event Based, Real Time View
Sampling Rate	Variable - records each tip
Size	7/8" x 7" (22 mm x 175 mm)
Weight	4.8 oz (135 grams)
Wetted Materials	316L Stainless Steel, Delrin®, Viton®

Advantages

- Add rainfall data to your Levelogger network
- Memory up to 60,000 time stamped readings
- 10 year battery
- Waterproof, low maintenance design
- Designed to be used with most tipping-buckets
- Compatible with Solinst Telemetry Systems

Operation

The Rainlogger is simply programmed with the user-friendly Levelogger Software. An Optical Reader connects the Rainlogger to a laptop or desktop PC and the Levelogger Software automatically detects the attached Rainlogger. The Rainlogger is also able to communicate with the Leveloader.

The Rainlogger is easily deployed in the field, using a 3-pin connector cable attached to the rain gauge.

Data downloading can be 'All Data', 'Append Data', or 'Data Dump' at any time. Data can be displayed in graph or table format and exported to other programs. The Rainlogger has self-test capability, a reliable EEPROM memory and FRAM back-up memory and the ability to upgrade firmware.

Applications

- Measuring local precipitation
- Determining peak rainfall events
- Stormwater management
- Remote monitoring of watersheds
- Ideal for correlating precipitation events to:
  - Groundwater and surface water data
  - Watershed and drainage basin studies
  - Agricultural and forestry studies

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