



ROCTEST

RT-VLOG - VW Datalogger



HIGH VW READING ACCURACY
4 OR 8 CHANNEL VERSIONS
OPTIONAL 900 MGHZ RADIO

The RT-VLOG is a robust, cost effective, compact and user-friendly datalogger for all pluck-type vibrating wire sensors on the market.

Description

The new **RT-VLOG** is a robust, compact and cost-effective **Vibrating Wire (VW)** datalogger designed to monitor all pluck-type vibrating wire sensors on the market.

Available in 4 or 8 channel configurations, the **RT-VLOG** is ideal for use in small and medium size projects, and especially for multi-level piezometers, load cells and multipoint extensometers.

Its non-volatile memory can store over 63,648 records. Each record includes the VW reading and temperature reading with time and date. When the memory is full, recording either stops or overwrites the oldest record.



Data can easily be retrieved in **Hz** and **Engineering Units** on your laptop via USB cable. The logger manager software saves all the reading in a text file (CSV), easily imported into your spreadsheet software.

A 900MHz Hermes Radio mounted onto the circuit assembly is also available on the **RT-VLOG 4/8-R900 versions**.

An optional RS-232 serial connection is available for IP modems, WIFI serial servers, etc.

The **RT-VLOG** is housed in an IP 68 enclosure fitted with cable glands for signal cable. Plugs are provided for unused cable glands.

One lithium D-Cell battery provides power for 9 years for the 4 Channel Datalogger and over 6 years for the 8 channel **RT-VLOG** in a moderate temperature, assuming readings taken every hour. The extra capacity battery option (for 3 additional lithium batteries) will extend the battery life in extreme cold weather.

Key Features

- Cost effective
- Robust & compact
- Easy set-up, no programming required
- 63,500 records in non-volatile memory
- Fast data retrieval (USB cable)
- 900MHz Radio or RS-232 communication options
- Lithium D-Cell, Long battery life
- IP 68 rated enclosure

Applications

- Piezometers
- Crackmeters
- Extensometers
- Strain Gauges
- Total Pressure Cells
- Temperature Sensors

Specifications

Memory	63,500 records in non volatile memory, including VW reading, temperature reading with time and date
Data retrieval	USB cable or optional serial connection
Logger Settings	Date, time, communication and memory mode (Stop or continuous by overwriting the earliest writing)
Logger Schedule	Logger start time for synchronization, reading interval (max: 1 year, min. 4 ch: 20 sec./8 ch: 30 sec.)
Sensor Setting	Sensor ID, serial number, calibration factor and sweep range for each sensor Choice of thermistor or RTD for temperature sensors
Status Indicator	3 LED to inform user of current state
Resolution	0.001% for vibrating wire sensors 0.1°C for temperature sensors
Accuracy	± 0.002% (reading + 0.04 Hz) for vibrating wire sensors ± 0.5°C for temperature sensors
VW Measurement Range	450 to 6000 Hz
Temperature measurement range	-20 to 120°C (Thermistor or RTD)
Temperature operating range	-40 to 85°C
Battery	Lithium D-Cell* (Default 1, Extra Capacity Option for 3 additional batteries) Recommended: Xeno Energy # XL-205F or Tadiran # TL-5930 (TL-5930/S)
Battery life (typical)	9 years for the 4 channel logger in moderate temperature, assuming readings at every hour 6 years for the 8 channel logger in moderate temperature, assuming readings at every hour
Weatherproofing	IP 68 enclosure & cable glands for signal cable. Plug are provided for unused cable glands
Dimensions	22.8 x 19.8 x 9.7 cm (9.0 x 7.8 x 3.83 in.)
Weight	4 ch: 0.92 Kg, 8 ch: 1.24Kg

Models

USB interface cable and a sheet metal wrench (for gland and terminal screw tightening) are included with the logger. The V-Logger utilizes a D-cell lithium battery, which can be sourced locally or purchased with the V-Logger. Please note that air shipment of the battery domestically is considered a Hazardous Goods shipment and it may not be possible to some international locations. The manual and software are available for download from www.slopeindicator.com

- 4-Channel V-Logger with Radio, North America (902 - 928 MHz)
- 4-Channel V-Logger with Radio, Europe (863 - 870 MHz)
- 4-Channel V-Logger with Radio, Australia (915 - 928 MHz)
- 8-Channel V-Logger with Radio, North America (902 - 928 MHz)
- 8-Channel V-Logger with Radio, Europe (863 - 870 MHz)
- 8-Channel V-Logger with Radio, Australia (915 - 928 MHz)
- Hermes Wing (Base Station)
- North America (902 - 928 MHz)
- Europe (863 - 870 MHz)
- Australia (918 - 926 MHz)
- Lithium D-Cell Battery
- Pole Attachment with 1" Pipe
- Pole Attachment with 1.25" Pipe
- Pole Attachment with 1.5" Pipe
- Wall Mount

Multi-Channel Selections:

The Hermes radio uses the ISM license free bands and has multiple channels within those bands:

- North America: 902 - 928 MHz
- 10 Channels (Ch1 - Ch10) Europe: 863 - 870 MHz
- 3 Channels (Ch11 - Ch13) Australia: 915 - 928 MHz
- 4 Channels (Ch7 - Ch10) Antennas: The Hermes radio has been tested and approved for use with the following antennas.
 - Standard Articulating Dipole, Mid-range (2.0 dBi)
 - Straight Whip Dipole, Mid-range (2.5 dBi)
 - Right Angle Whip Dipole, Mid-range (2.5 dBi)
 - Manhole Lid Dome, Short-range (2.5 dBi)
 - Omni-Directional Collinear, Long-range (5.15 dBi)
- Radio Specifications: Transmit Power Output 10 - 100mW
- Receiver Sensitivity -107 dBm
- RF Data Rate 500kbps

Ordering information

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|---|---|
| • RT-VLOG 4 4 Channel datalogger | • RT-VLOG 4 RS232 4 Ch with serial connection |
| • RT-VLOG 8 8 Channel datalogger | • RT-VLOG 8 RS232 8 Ch with serial connection |
| • RT-VLOG 4 RH900 4 Ch + Hermes Radio (902-928 MHz) | • RT-VLOG 4 RS232-S 4 Ch Sensemetrics ready |
| • RT-VLOG 8 RH900 8 Ch + Hermes Radio (902-928 MHz) | • RT-VLOG 8 RS232-S 8 Ch Sensemetrics ready |

Optional accessories

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|--|------------------------|
| • Lithium D-Cell battery* | • Pipe mount kit 1" |
| • 4 Channel extra capacity battery options | • Pipe mount kit 1.25" |
| • 8 Channel extra capacity battery options | • Pipe mount kit 1.5" |
| • RS-232 serial connection | • Pole mount kit 6-12" |
| | • Wall mount kit |

* Lithium D-Cell Batteries will only be shipped by ground transportation. Xeno Energy or Tadiran lithium D-Cell batteries can easily be sourced locally for international customers. Lithium batteries are now considered as hazardous goods for air shipment.