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DT2011-B Single Channel Vibrating Wire Data Logger



The Single Channel Vibrating Wire Data Logger is a low cost, battery powered data logger, designed for reliable, unattended monitoring of a single vibrating wire sensor and thermistor.

It is a purpose built logger ideal for remote locations or instruments that require frequent reliable data recording. It connects to all vibrating wire sensors including piezometers, crack meters, and strain gauges. However, the Single Channel Vibrating Wire Data Logger will not connect to vibrating wire sensors with auto resonant circuitry.

Vibrating wire sensors have unique advantages in geotechnical applications, as the frequency output of the gauge is immune to external electrical noise, able to tolerate wet wiring without signal degradation, and able to transmit the signal upto 1.6 kilometers without loss.

Data logger setup and data collection is done using the Ultra-Rugged Field PC or a laptop. Multi-Channel Host Software is also included.



The DT2011-B is also equipped with an option to add on a radio antenna and incorporate it into an rstar wireless system. RST's rstar system uses wireless technology to provide continuous data acquisition.

Antennas can be ordered at a later date, or at time of initial ordering. An L900 rstar decal is also supplied for identification.

At right, a DT2011-B is shown with an attached antenna and an applied rstar L900 decal.



The radio antenna can be easily screwed into the connector which is at the top of the DT2011-B case.



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applications

Ideal for applications that require reliable, unattended monitoring of a single vibrating wire sensor.

features

HARDWARE

- Robust construction.
- 4MB memory.
- Weather resistant NEMA 4X (IP65) enclosure.
- Battery powered (lithium "D" cell) for remote sites.
- 100 year memory backup.
- Compatible with all VW sensors - excluding those with auto resonant circuitry.
- 40°C to 60°C (-40°F to 140°F) operating range.
- 0.01µs vibrating wire resolution.
- 16 bit analog/digital converter.

SOFTWARE

- User friendly Windows® host software included at no additional cost.
- Compatible with most spreadsheet software.
- Data stores in CSV format, and opens in Microsoft® Excel.



specifications + ordering info

DT2011-B Single Channel Vibrating Wire Data Logger



general specifications

DESCRIPTION	SPECIFICATION
Frequency Accuracy	0.01% Full Scale
Resolution	1 part in 65,000
Memory	Over 600,000 records including: time, frequency ² , temperature
Power Source	Lithium 'D' cell battery
Battery Life	Over 7 years / 4 memory fills depending on temperature and use
Communication	USB Type B connector (radio optional)
Dimensions	185 x 75 x 55 mm (7.28 x 2.95 x 2.17 in.)
Temperature Range	-40°C to 60°C (-40° to 140°F)
Enclosure	NEMA 4X (IP65)

data storage specifications

DESCRIPTION	SPECIFICATION
Memory	4MB
Data Transfer	500 data points per second
Interval Mode	2 seconds to 1 day
Variable Rate Mode	16 user programmable sampling rates
Time Format	Month / day / year Hour / minute / second
Memory Full Behaviour	"Wrap around" or "fill & stop" option

optional equipment

Communications cable
L900 radio option

ordering info

PART #	DESCRIPTION
DT2011-B	Single Channel Vibrating Wire Data Logger
IC32000-14803	Ultra-Rugged Field PC

Single channel logger used in:
CH-P-13-03/50,
CH-P-13-04/35 and
CH-P-13-05/50.
Refer to company website for
wiring diagrams and detailed
instructions.



Setup the data logger and collect data using the Ultra-Rugged Field PC.

Screenshot of the Multi-Channel Mobile software as shown on the Ultra-Rugged Field PC.