DT2011B: Single Channel Vibrating Wire Data Logger

Description

The DT2011B 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 DT2011B 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 up to 1.6 kilometers without loss.

Data logger setup and data collection is done using a laptop. RST's DT Logger Host Software is also included.

The DT2011B can also be equipped with an optional radio antenna (see photos) to incorporate it into an RSTAR or DT LINK wireless system (see separate brochures). RST's RSTAR system uses wireless technology to provide automated data acquisition and DT LINK allows wireless collection of data logger data in hard to access areas.

DT2011B: Single Channel Vibrating Wire Data Logger Specifications

ITEM	SPECIFICATION
Frequency Accuracy	0.01% Full Scale
Resolution	1 part in 65,000
Memory Records	Up to 600,000 records including: time, frequency , temperature
Power Source	Lithium compact or standard cell battery (NOTE: standard cell required for radio use)
Battery Life	Up to 4 years (assuming 1 hour reading frequency) depending on temperature and use (radio or non-radio)
Communication	USB Type B connector (radio optional)
Dimensions	190 x 75 x 55 mm (7.48 x. 2.95 x 2.17 in.)
Temperature Range	-40°C to 60°C (-40° to 140°F)
Enclosure	NEMA 4X (IP66)

MEMORY SPECIFICATIONS

ITEM	SPECIFICATION
Memory Size	4MB
Data Transfer	2,300 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

SPECIFICATIONS