

DT2055B: 5/10 Channel Vibrating Wire/Thermistor Data Logger

Description

The DT2055B: 5/10 Channel Vibrating Wire/Thermistor Data Logger is a low cost, battery powered data logger, designed for reliable, unattended monitoring of up to 10 sensors which may be any mix of vibrating wire sensors and thermistors, typically 5 vibrating wire sensors with their associated thermistors.

The DT2055B is 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 DT2055B Ten Channel 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. DT Logger Host Software is also included. A single gland option (DT2055B-T) is also available for Multi-point Vibrating Wire Piezometer Strings or Thermistor Strings.

The DT2055B can also be equipped with an optional radio antenna (see photo) to incorporate it into an RSTAR or DT LINK wireless system.

DT2055B: 5/10 Channel Vibrating Wire/Thermistor Data Logger Specifications

| ITEM | SPECIFICATION |
|--------------------|--|
| Frequency Accuracy | 0.01% Full Scale |
| Resolution | 1 part in 65,000 |
| Memory Records | Up to 120,000 records including: time, 5 channels frequency, frequency2, 5 channels temperature |
| Power Source | Lithium compact or standard cell battery (NOTE: standard cell required for radio use) |
| Battery Life | Up to 4 years (non-radio or RSTAR) or 3.5 years (DT LINK) (NOTE: above specs based on 1-hour reading frequency and dependent on temperature and use) |
| Communication | USB Type B connector (radio optional) |
| Dimensions | 120 x 122 x 90 mm (4.72 x 4.80 x 3.54 in.) |
| Temperature Range | -40°C to 60°C (-40° to 140°F) |
| Enclosure | NEMA 4X (IP65) |

MEMORY SPECIFICATIONS

| ITEM | SPECIFICATION |
|---------------|------------------------------|
| Memory Size | 4MB |
| Data Transfer | 4,000 data points per second |

| | |
|-----------------------|---|
| Interval Mode | 10 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