



**DT
SERIES**
DATA LOGGERS



As shown above, the DT2040 can also be equipped with an optional radio antenna to incorporate it into an RSTAR or DT LINK wireless system. 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.



PRODUCT CATEGORY:
READOUTS + DATA LOGGERS

DT2040: 20/40 Channel Vibrating Wire/Thermistor Data Logger

The DT2040: 20/40 Channel Vibrating Wire/Thermistor Data Logger is a low cost, battery powered data logger, designed for reliable, unattended monitoring of up to 40 sensors which may be any mix of vibrating wire sensors and thermistors, typically 20 vibrating wire sensors with their associated thermistors and/or thermistor strings.

The DT2040 is a purpose built logger ideal for remote locations or for instruments that will require frequent reliable data recording. The DT2040 connects to all vibrating wire sensors including piezometers, crack meters, and strain gauges; however, it will not connect to vibrating wire sensors with auto resonant circuitry. Surge protection is available on each channel with ground lug on exterior of enclosure (ground rod required).

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 the Ultra-Rugged Field PC2 or a laptop. RST's DT Logger Host Software is also included.

The DT2040 can also be equipped with an optional radio antenna (see photo) to incorporate it into an RSTAR or DT LINK wireless system (see separate brochures).

> APPLICATIONS

Where reliable, unattended monitoring of up to 20 vibrating wire sensors or 40 thermistors points is required.

> FEATURES

HARDWARE:

Robust construction.	4MB memory.
Battery powered for remote sites.	-40°C to 60°C (-40°F to 140°F) operating range.
Compatibility with all VW sensors - excluding those with auto resonant circuitry.	Option for radio antenna for incorporation into an RSTAR system or DT LINK.
100 year memory backup.	Weather resistant NEMA 4X (IP65) enclosure.
0.01µs vibrating wire resolution.	16 bit analog/digital converter.
Surge protection on each channel with ground lug on enclosure's exterior (ground rod required).	

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.	

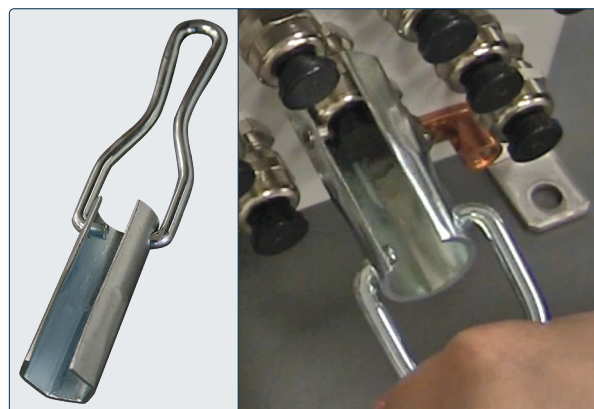
> BENEFITS

✓ Increase Productivity	✓ Upgradable
✓ High Reliability	✓ Custom Options
✓ High Accuracy	✓ Cost Effective

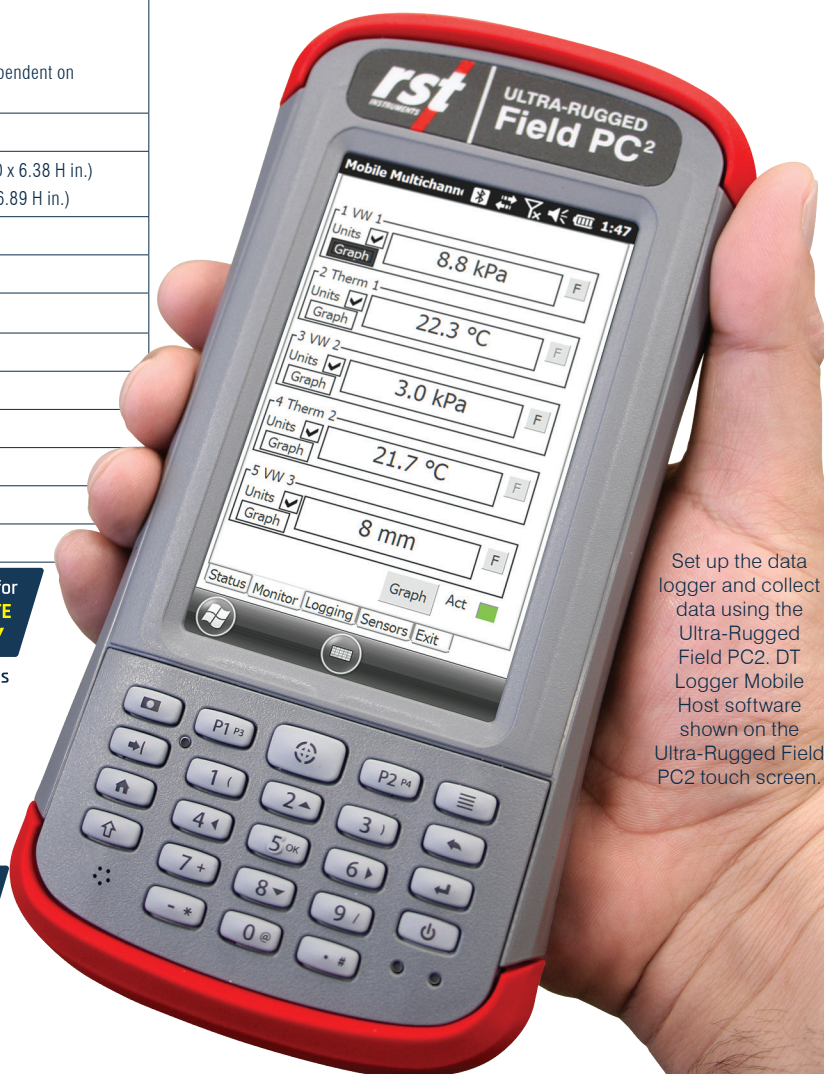
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SPECIFICATIONS + ORDERING

SPECIFICATIONS	
GENERAL	
ITEM	SPECIFICATION
Frequency Accuracy	0.002% Full Scale
Resolution	1 part in 65,000
Memory Records	- 2 CHANNELS: Up to 303,000 records - 40 CHANNELS: Up to 32,768 records Including: time, 20 channels frequency, frequency ² , 20 channels temperature
Power Source	Lithium compact or standard cell battery (NOTE: standard cell required for radio use)
Battery Life	Over 4 years (non-radio) standard cell 1.5 years (non-radio) compact cell 3 years (RSTAR, standard cell) 2 years (DT LINK, standard cell) (NOTE: above specs based on 1 hour reading frequency and dependent on temperature and use)
Communication	USB Type B connector (radio optional)
Dimensions	Without mounting tabs: 349 x 301 x 162 mm (13.74 W x 11.85 D x 6.38 H in.) With mounting tabs: 349 x 301 x 175 mm (13.74 W x 11.85 D x 6.89 H in.)
Temperature Range	-40°C to 60°C (-40° to 140°F)
Enclosure	NEMA 4X (IP65)
MEMORY	
Memory Size	4MB
Data Transfer	5,000 data points per second
Interval Mode	40 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



The Cable Gland Nut Wrench (DT100) improves access to the glands when compared to a standard wrench.



Set up the data logger and collect data using the Ultra-Rugged Field PC2. DT Logger Mobile Host software shown on the Ultra-Rugged Field PC2 touch screen.

ORDERING	
ITEM	PART #
DT2040 Data Logger	DT2040
Ultra-Rugged Field PC2	IC32000-AR2-RSTS
Cable Gland Nut Wrench	DT100
Grounding Rod Kit	ELGK4600
OPTIONS	
RSTAR L900 - automated wireless data collection	
DT2040 DTLINK - wireless data collection	

