

EWS DVWT

Dual Vibrating Wire Telemetry.



Environment • Water • Geotechnical • Data



EWS VWT Vibrating Wire Telemetry.

Overview.

The **EWS DVWT (Dual Vibrating Wire Telemetry)** presents a versatile multi-channel option, multi-communication enabled IoT device designed specifically for remote Geotechnical and Structural monitoring applications. Connect to any Vibrating Wire sensor such as VWP's, Strain Gauges and Crack Meters, and transmit data from anywhere utilising either 4GLTE or Satellite connectivity.

The device is dual channel which makes it ideal for sites with up to 2 VW instrument such as nested piezometer bores.



Features.

- Multi-communications option; Send data via satellite (Iridium, or CatM1 LTE).
- Reads all Vibrating Wire Sensors.
- Dual Channel, 2 x VW Sensors
- Adjustable sweep range to suit different VW Sensor types.
- Internal rechargeable battery pack or long-life non rechargeable options.
- Input for external battery pack or direct to solar (Internal Solar regulator).
- Ultra-Low power draw with internal battery backup.
- Configure using Bluetooth mobile app (available on Apple and Android).
- Remotely change settings with two way comms including over Iridium.
- Rugged and robust for harsh environments.
- Encoding scheme for compression of data packet size.
- Automatic upload to Orion Cloud.
- Internal storage of up to 260,000 events.



Benefits.

- Connects to all standard VW sensors commonly used in geotechnical and structural monitoring.
- Compact and discreet, reducing installation time and footprint.
- Designed and Manufactured in Australia.
- Rugged and robust - deigned for harsh remote environments.
- Plug and play setup on-site.
- Very straightforward and scalable for fast deployments and large monitoring roll outs.
- No risk of Single-Point-Failure - Each device transmits independently.
- Ideal for tailings dam monitoring.
- Perfect for new and retrofit instrumentation projects.



Specifications.

Physical property

Dimensions (W x H x D)	Rechargeable - Approx 66 x 126 x 43 mm	
	Non - rechargeable - Approx 66 x 126 x 60 mm	
	Cable length from housing - Approx 400 mm	
Body weight	without battery	Approx 254 g (For 18650)
		Approx 264 g (For D cell)
Optional Waterproof level	IP67 rating	

Operating environment

Temperature (1, 2)	-20 ... 65 °C	Storage (Without battery) -40 ... 65 °C
Humidity	5 ... 60% RH	

Power source

Internal power (3)	2x Rechargeable 18650 battery / Suggested model: ICR18650-26JM
	1x Non-rechargeable (D cell) battery / Suggested model: ER34615M
External power	DC 12 ... 24 V / 1 A
	Battery or Solar power with M8 connector

Output Option

Channel	2 VWP's and 2 Temperature	
Measurement of Vibrating wire	Measurement Excitation	Automatically set 5V to 12 V
	Sweeping frequency range	450...Hz
	Accuracy	+/-0.1% Full Scale
Measurement of Temperature	Accuracy	+/-0.1°C

Connectivity

USB	1x Micro USB
Wireless	Bluetooth 5

System

Clock	RTC	Accuracy 70 ppm (20 ppm at 25 °C)
	Network time Sync support	
Display	LEDs indicating status	
Configuration	Remotely change setting with two-way communications established via an application gateway	

Logging

Number of channels	20	
Reading interval	sec/min/hr	Max. 24:00:00
Memory	4MB / 256,000 Events (Non-volatile-Log)	
Software	EWS Logger V00.01.137 or higher	Compatible with Window 10
File format	.csv	

Specifications.

Built-in sensor / function

Internal battery voltage	Yes
External voltage supply	Yes
Temperature	Yes
Radio signal	Yes
GPS tracking	Only cellular modem
Barometer	No

Network communication

Iridium	Protocols	Short Burst Data
	Coverage	Worldwide
4G Cellular LTE-M/NB-IOT	Protocols	MQTT
	Network support	Telstra (Australia) Most major networks globally
	Coverage	4 million Sqr km

Antenna type

Built-in antenna	Yes
External antenna	Optional

Contact us

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