

EWS TMT

Telemetry Tilt Meter.



Environment • Water • Geotechnical • Data



EWS TMT Telemetry Tilt Meter

Overview.

The **EWS Telemetry Tilt Meter** integrates the power of EWS wireless IoT monitoring technology with a highly accurate inbuilt triaxial tilt sensor for remote monitoring of a range of geotechnical and structural applications. The EWS Telemetry Tilt Meter devices log and transmit tilt data independently and do not rely on radio transmission to a centralised gateway eliminating the risk of single-point failure. The device is plug and play and multi-communication enabled with transmission available over 4GLTE and uniquely over Satellite allowing the devices to be deployed in the most remote locations on Earth and still provide connectivity to important data.

The EWS TMT presents a world first in satellite enabled tilt monitoring and opens opportunities to remotely monitor areas that were previously impossible.



Features.

- World's first satellite communication enabled wireless tilt meter.
- Multi-Communications options; Send data via Satellite (Iridium) or 4GLTE.
- Highly accurate triaxial MEMS tilt sensor.
- Ultra-Low power draw with internal long-life lithium batteries.
- Configure using Bluetooth mobile app (available on Apple and Android).
- Remotely change settings with two-way communications including via Iridium.
- Out-of Cycle "Event" transmission.
- Compact form factor 45mm x 110mm x 180mm.
- Rugged and robust for harsh environments.
- Encoding scheme for compression of data packet size.
- Automatic data upload directly to Orion Cloud.
- Internal storage of up to 260,000 events.



Benefits.

- Ideal for a range of remote slope stability, slip detection, rail and structural monitoring applications.
- Each device independently logs and transmits data.
- No gateway or further communication infrastructure required.
- Compact and discreet, reducing installation time and footprint.
- Designed and Manufactured in Australia.
- Rugged and robust - designed for harsh remote environments.
- Plug and play setup on-site.
- Very straightforward and scalable for fast deployments and large monitoring campaigns.
- Make remote configuration changes over the air.



Specifications.

Physical Property

Dimensions (W x H x D)	Approx 113 x 182 x 49 mm	
Body weight	612 g (without battery)	D cell approx 111g each
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 Non-rechargeable (D cell) battery / Suggested model: ER34615M (LiSOCL2)	
External power	No	

Output Option

Functionan/ interface	MEMS Triaxial Accelerometer	Range	-5° ... +5°
		Resolution	0.0001°
		Sensitivity	0.001°
		Repeatability	-0.002°...+0.0002°
		Non-Linearity	-0.002°...+0.0002°

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	No
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

EWS Monitoring.

Australia: Perth | Sydney

Americas

Sales enquires: sales@ewsaustralia.com

Support enquires: support@ewsaustralia.com

Other: info@ewsaustralia.com

ewsmonitoring.com



Environment • Water • Geotechnical • Data