

# 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.

## Mechanical

<b>Size</b>	Width 110mm	Length 180mm	Height 45mm
<b>Weight</b>			
<b>Weather protection</b>	IP67		

## Built-in Triaxial Tilt Sensor channel

### MEMS Triaxial Accelerometer

Range	-15° to +15° Degrees
Resolution	0.001°
Sensitivity	0.001°
Repeatability	-0.002° to +0.002° Degrees
Non-Linearity	-0.002 ° to +0.002° Degrees

## Environmental

Operating Temperature	-20 - 60°C
Green Heartbeat LED	-40 - 65°C
Humidity	595% Re

## Power

### External Power Supply Input

Input Voltage	12	24V
Input Current	700mA	

### Internal Battery (Rechargeable)

Chemistry	Lion		
Terminal Voltage	6.8	7.8	8.4V
Capacity	1.8/4.8 Ahr		

### Internal Battery (Non-Rechargeable)

Chemistry	LiMnO2		
Terminal Voltage	6.8	7.8	8.4V
Capacity	4.8 Ahr		

### Sensor Power Output

Output Voltage	11	12	13V
Output Current	500 mA		

### Digital Output

Output Voltage	11	12	13
Estimated Battery Life	5-10 Years		

# Specifications.

## Storage

### Non-volatile-Log

Size	4MB
Events	256000 Events

## Bluetooth support

Bluetooth Standard	5.0
Data Rate	2.5 kbps

## Clock

### RTC

Accuracy	-10 to 70°C	20	70ppm
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### Network Time Sync Support

Supported Networks	Iridium	Cellular
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## Telemetry support

### Iridium

Protocols	Short Burst Data
Coverage	Worldwide

### 4G Cellular LTE-M/NB-IOT

Protocols	MQTT
Email	
Network Support	Telstra
Coverage	4 million Sqr km



# Contact us

## EWS Monitoring.

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