

Overview

The **EWS Telemetry Tilt Meter** integrates the power of EWS wireless IoT monitoring technology with a highly accurate in-built 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

- ✔ Worlds first satellite communication enabled wireless tiltmeter.
- ✔ Multi-Communications options; Send data via Satellite (Iridium, Swarm, Myriota) 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 - IP68.
- ✔ 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 onsite.
- ✔ Very straightforward and scalable for fast deployments and large monitoring campaigns.
- ✔ Make remote configuration changes over the air.



SPECIFICATIONS

Specifications subject to change without notice.

MECHANICAL

Size	Width 110mm Height 45mm	Length 180 mm
Weight		
Weather protection	IP68	

BUILT-IN TRIAXIAL TILT SENSOR CHANNEL

MEMS Triaxial Accelerometer

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

ENVIRONMENTAL

Operating Temperature	-20 60 °C
Storage Temperature	-40 65 °C
Humidity	5 95 % Re

POWER

External Power Supply Input

Input Voltage	12	24 V
Input Current	700 mA	

Internal Battery (Rechargeable)

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

Internal Battery (Non-rechargeable)

Chemistry	LiMnO2		
Terminal Voltage	6.8	7.8	8.4 V
Capacity	4.8 Ahr		

Sensor Power Output

Output Voltage	11	12	13 V
Output Current	500 mA		

Digital Output

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

STORAGE

Non-volatile-Log

Size	4 MB
Events	256000 Events

BLUETOOTH SUPPORT

Bluetooth Standard	5.0
Data Rate	2.5 kbps

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CLOCK

RTC

Accuracy (-10 to 70°C)

20

70 ppm

Network Time Sync

Support

Supported Networks

Iridium

Cellular

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

Myriota

Protocol

AWS Lambda

Coverage

Australia Wide