

MEMS Biaxial Tiltmeter



Product Overview

The MEMS Biaxial Tiltmeter is a compact, rugged tiltmeter that outputs a 4-20mA signal.

Housed in a machined, anodized, aluminum enclosure, the tiltmeter is designed for structural monitoring and is built to withstand all weather elements.

The tiltmeter is compatible with most data acquisition systems, including the WASP datalogger, Loadsensing's G6 data acquisition system and Campbell Scientific dataloggers.

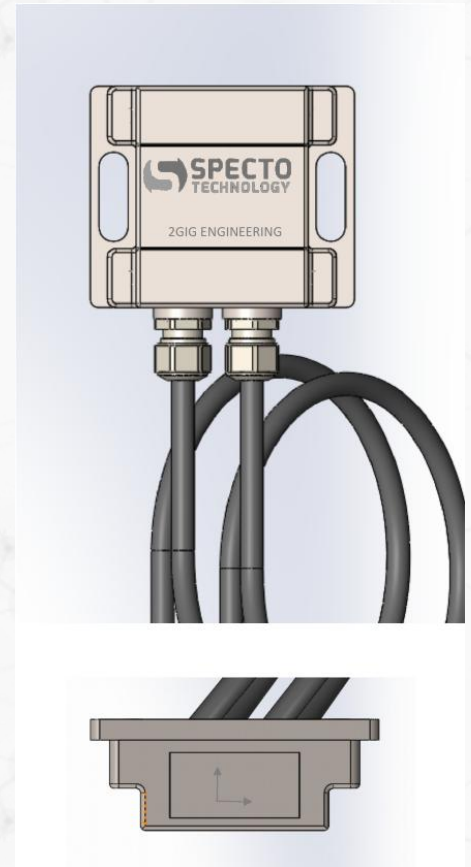


Features

- Biaxial MEMS tilt sensors with built-in thermistor
- Small size
- Rugged, anodized aluminum enclosure
- Electronics are fully encapsulated
- +/- 10° range
- Low power consumption
- Pigtail cables included for easy splicing

Benefits

- Compatible with most data acquisition systems
- Discrete appearance due to small size
- Protection from water ingress due to fully encapsulated electronics
- Simple to install due to light weight
- Ideal for long-term, outdoor monitoring projects
- Wide range of input voltages



Technical Specifications

Tiltmeter Sensor

Sensor Type	MEMS, Biaxial
Range	$\pm 10^\circ$
Output	4-20mA
Accuracy	0.1% of FS (0.02°)
Resolution	Dependent on datalogger
Warmup Time	0.5 seconds
Refresh Rate	250 Hz

Temperature Sensor

Sensor Type	NTC 3K Thermistor
Range	-50°C to 150°C
Output	Ohms

Electrical

Power Input	8 – 40 VDC
Power Method	Loop powered
Current Draw	15mA@12V, 9.5mA @24V (+ output)
Reverse Polarity Protection	Yes
Overvoltage Protection Surge Protection	Up to 60VDC Up to 500V/250A

Physical

Size	2.375" x 1.875" x 0.875"
Weight	5 oz (with 1m cables)
Cable Glands	2 (one for tilt sensors, one for thermistor)
Cables	2 x 4-conductor, 22AWG, 1m length
Housing	Anodized aluminum
Mounting	2 x 1/4" bolts through machined slots on flanges
Ingress Protection Operating Temp. Range	IP67 -40°C to 85°C