

GT-ETI-MR MemS Tiltmeter



Features and Advantages

- Easy to mount
- High stability, and repeatability
- High C/P value
- Rugged enclosure
- IP67 waterproof
- Can be connected together as a string

Geotech Model GT-ETI-MR is using biaxial-MEMS sensor to detect the small change of structural tilt. The measurement range is ± 30 degrees from vertical. Analog Output is $\pm 5V$ at ± 30 degrees, while customizable digital output makes the signal insensitive to external noise. The tiltmeter is fixed to wall or structure to monitor the tilt of the structure. The data is collected manually by using GT-HR handheld readout, in the other hands, for automated system GT-1000 datalogger is used.

Application

For example, during the construction phase of MRT, TBM tunneling can have impact on the surrounding buildings. Therefore For safety consideration, Tiltmeter is installed on the wall of the buildings to monitor the inclination used as the indicator that the building is safe. For automatic system, the reading is then taken continuously by using datalogger and transferred wirelessly to the office server; data can be displayed in real-time using Geoauto software. Other applications including installation in structures due to nearby excavation, retaining wall, bridge piers, dam, embankment, etc.

System Components

The sensor is enclosed in 304 Stainless Steel and has an IP67 Waterproof. It is also designed to be connected together as a string. The tiltmeter is supplied with a bracket that can be welded to steel or bolted to anchors.



Technical Specifications

Measurement Axis	Biaxial
Measurement Range	±30 arc degrees
Accuracy	± 10 arc second
Sensor Input	12VDC ± 3V
Sensor Output	±5V @ ±30°
Operation Temperature	-20°C~80°C
Temperature Sensitivity	0.5 arc second /°C
Shock Survival	2000g
Enclosure (Waterproof)	Stainless Steel (IP67)
Dimension (Lx Ø)	219x32 cm (Approx.)
Manual Monitoring	With GT-HR Handheld Readout
Automatic Monitoring	With GT-1000 Datalogger

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