

Geo-Instruments: High Accuracy Beam Tiltmeter

Geo-Instruments High Accuracy Beam Tiltmeter systems provide a proven long term monitoring solution for many structural applications requiring rotation measurements in near real time. They are easily installed and provide a direct method to detect differential movement and rotation in structures.

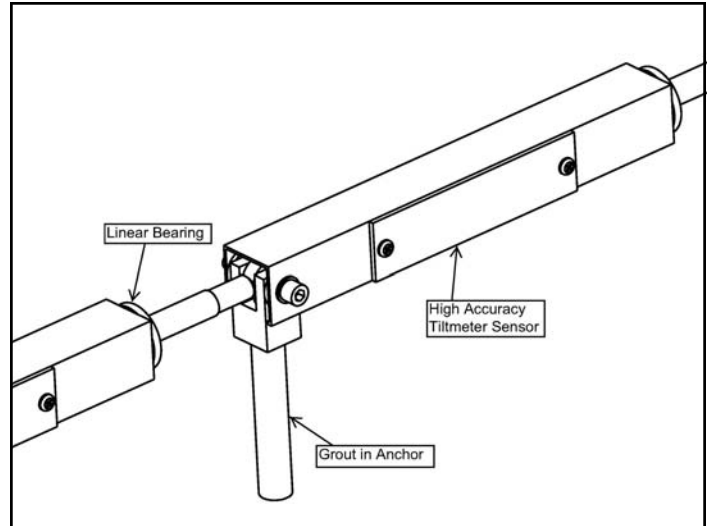
Typical applications include:

- Effects of deep excavations and diaphragm wall construction on adjacent existing structures.
- Structural Health/Long term monitoring applications.
- Deformation monitoring within tunnels, including convergence applications.
- Compensation grout monitoring.
- Remote monitoring of distressed structures.
- Verification of SOE design assumptions.

Benefits to this system include:

- Robust, accurate, simple and reliable.
- Very cost effective per measurement point.
- Proven technology, with good long term stability.
- Versatile installation as discrete points or end to end so that a profile of the structure can be derived.

This beam tiltmeter may be integrated with our WiSe data logging system or with standard CSI type loggers. Please see separate datasheets for loggers.



Above: System shown with high accuracy mounting bracket. Bracket configuration is designed to allow multiple Beam element to be installed horizontally for differential displacement measurements.

Note: Beam system can also be mounted vertically using the vertical tiltmeter sensor.

Range	+/- 45 Arc Minutes
Accuracy	+/- 0.1mm/m
Absolute Error with Bowditch Correction	Per 50' = .75mm/m
Resolution	0.02% Full Scale
Repeatability	+/- 0.05% Full Scale
Excitation Voltage	2.5v AC
Current Consumption	<1µA
Output Signal	Ratiometric AC
Operating Temperature	-20 to +50° C
Zero Adjustment Range	+/- 5°
Gage Length	0.5 to 3.0 meters
Ingress Protection	IP66

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*Helping you get the
 data you need.*

