



Tiltmeter OG307

Technical features

Surface inclinometers are used to monitor tilt of civil structures or retaining walls. They are also used to measure diaphragm rotations during excavating operations. The device needs to be attached to the measured structure by means of a clamp. The sensor is there after calibrated at its zero point, by moving its joints. Measures can be read by a manual readout unit or by a datalogger. A full scale of only $\pm 5^\circ$, allows resolution and stability that are adequate to usual operating conditions. Thanks to the joints, device positioning is precise and reliable over time. The integrated thermometer allows to evaluate the thermal effect on the structure and on the sensor so that a distinction between seasonal variations and actual rotations can be made. MEMS principle of functioning guarantees a good thermal stability and an excellent linearity. The case, suitable for outdoors positioning, can be requested at protection degree IP67. The sensor is compatible with Geotester.

Applications

Tilt-meters are used to measure the variations of inclination of a rock mass or a civil structure. It can be used in the following situations:

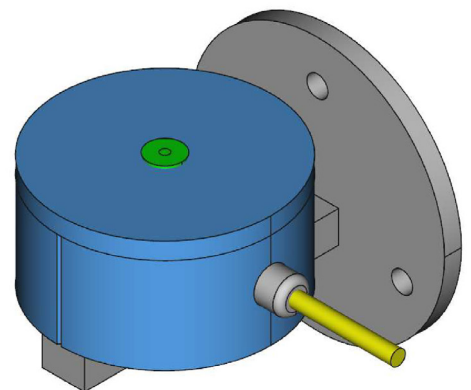
- Monitoring buildings damaged by landslides or earthquakes
- Turning control of walls and diaphragms during excavations
- Retaining walls, bridges
- Towers, bell

Installation

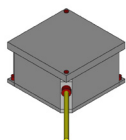
- The instrument's installation is carried out fixing the anchor plate, made up to link bind Tiltmeter in vertical starting position and then, using the ball joint, to calibrate the sesor.

Related Instrumentation

- 2x2x0.25 PUR Cable
- NTC Thermometer
- Suspension Head
- OG180 readout unit
- IP65 connectors
- Datalogger D1600-D3200
- OtrMonitoring web site



Technical Specification



Model	OG307-MEMS
Description	Tilt-meter MEMS sensor Mono-axial and biaxial
Working Principle	MEMS
Range	+/- 5° +/- 10°
Resolution	0.001°
Power supply	12-18 Vcc
No linearity	< 0.5% F.S.
Temperature sensor	Built in thermistor on demand
Thermal drift	<0.002°/K
Operating temperature	-20°C / +60°C
Output signal	mV
Cross axis	< 1%
Sensor enclosure	Oxidized aluminum
Degree of protection	IP 65 or more on request
Support bracket	Stainless steel , for adjustment to zero

Codes & Part Numbers

P/N 2013020	OG307 wall inclinometer MEMS ± 5 ° biaxial
P/N 2013021	OG307 wall inclinometer MEMS ± 10 ° biaxial
P/N 2013022	Adjustable stainless steel bracket
P/N 2013023	Inclinometro OG307 da parete MEMS ±5° monoassiale
P/N 2013024	OG307 wall inclinometer MEMS ± 10 ° monoaxial