



Portable Tiltmeter

Technical features

The portable Tiltmeter is used to measure the inclination of an horizontal or vertical surfaces. The tiltmeter is composed by a stainless steel container for the tilt sensor with MEMS technology or Servo-accelerometer.

The mechanics allows perfect positioning of the instrument on the measuring plate which is anchored to the surface under control. For the execution of the measures tiltmeter is placed on the measuring plate in all directions. Measures are obtained in the two directions orthogonal to each other simply by rotating the instrument 90° degree. Any systematic errors of the instrument or assembly errors of the measuring plate are eliminated by performing opposite measures.

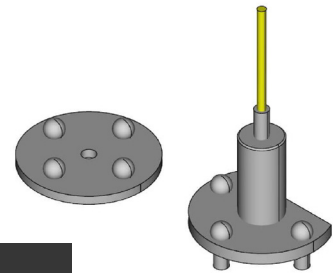
Applications

The portable Tiltmeter is used to monitor the rotation by manual measurements of structures such as buildings, walls of containment. it can be used in the following situations:

- Monitoring buildings damaged by landslides or earthquakes
- Retaining walls, bridges and docks
- Towers, bell

Installations

- The plate must be anchored to the surface to monitor . The reading is done by positioning the instrument on the calibrated plate. Zero error of the instrument is eliminated making opposite measures.



Related Instrumentation

- OG180 Manual Readout Unit
- OG307 electrical tiltmeters
- Crackmeters



Technical specifications



Description	Tiltmeter Servo-accelerometer monoaxial	Tiltmeter Accelerometer monoaxial
Principle of functioning	Servo-accelerometer	MEMS
Range	$\pm 10^\circ$	$\pm 10^\circ$
Resolution	100.000 sin a	25.000 sin a
Power supply	$\pm 12 V_{cc}$	$\pm 12 V_{cc}$
Cross axis	$< 0.2^\circ$	$< 0.2^\circ$
Output signal	$\pm 5.0 V_{cc}$ ± 14.5	$\pm 4.0 V_{cc}$ su $\pm 14.5^\circ$
Consumption	$\pm 15 mA$	$\pm 15 mA$
No linearity	$< 0.02\% F.S.$	$< 0.5\% \text{ del F.S.}$
F.S. Thermal drift	$< 100 \text{ ppm}/^\circ C$	$< 150 \text{ ppm}/^\circ C$
Zero thermal drift	$< 0.001/^\circ C$	$< 0.002/^\circ C$
Operating temperature	from $-20^\circ C$ to $+60^\circ C$	from $-20^\circ C$ to $+60^\circ C$
Sensor enclosure	Stainless steel	Stainless steel
	Stainless steel or Alluminium forced centering system	

Codes & Part Numbers

P/N 2005000 Tiltmeter $\pm 15^\circ$ MEMS
 P/N 2005001 Tiltmeter $\pm 15^\circ$ SERVO
 P/N 2005002 OG180 readout unit in sen a
 P/N 2005003 Stainless Steel Tilt Plate
 P/N 2005004 Aluminium Tilt Plate