

Portable Tiltmeter

Description

The RST Portable MEMS Tiltmeter utilizes a MEMS tiltmeter to measure tilt in either one or two axial planes perpendicular the surface of the base plate. The output is a digital output and is directly proportional to the sine of angle of tilt. In the horizontal position the DC output is zero. Portable MEMS Tiltmeters require placing the tiltmeter in a reproducible position on a reference plate attached to the surface being monitored. It is designed for applications where a large number of measuring points are to be observed.

TILT SENSOR SPECIFICATIONS

ITEM	SPECIFICATION
Range	$\hat{A}\pm 30\hat{A}^\circ$
Resolution	$\hat{A}\pm 0.0002\hat{A}^\circ$ (0.004 mm/m) \hat{A}^1
Non-linearity	$\hat{A}\pm 0.0125\%$ F.S. ($\hat{A}\pm 0.002\hat{A}^\circ$) (0.03 mm/m)
Repeatability	$\hat{A}\pm 0.0125\%$ F.S. ($\hat{A}\pm 0.002\hat{A}^\circ$) (0.03 mm/m)
Sensor	MEMS (Micro-Electro-Mechanical Systems) Accelerometer
Material	Stainless steel / Aluminum NEMA 4X (IP-65) weatherproof enclosure
Weight	10.38 lbs (4.710 kg)

TILT PLATE SPECIFICATIONS

ITEM	SPECIFICATION
Material	316 stainless steel
Dimensions	5.5 in. OD x 2.5 ID x 0.95 (140 x 63 x 14 mm) 4 pegs equally spaced on 4 in. (102 mm) dia.
Weight	1.7 lbs (0.77 kg)
Installation	Epoxy or mechanical 4 x $\hat{A}\frac{1}{4}$ mounting holes on 4 in. (102 mm) dia.

SPECIFICATIONS