In-Place Tiltmeter

Description

RST's In-Place Tiltmeters (MEMS) measure tilt in two axial planes perpendicular to the surface of the base plate. The unit is intended to be permanently installed to provide long term observation with maximum resolution and sensitivity, and is conveniently designed for manual monitoring or remote data acquisition. The system consists of a tiltmeter mounting plate, interconnecting cable, and data logger or readout instrument. The electronics are housed in a NEMA 4X (IP-65) enclosure for environmental protection, and is typically bolted or bonded to the structure. For maximum resistance against water ingress, the cable is typically hard wired to the enclosure. The interconnecting cable is suitable for direct burial.

ITEM	SPECIFICATION
Range	±30°
Resolution	0.0002° (0.004° mm/m)
Sensor Precision	±0.0013° (0.02 mm/m)[1] ±0.0005° (0.01 mm/m)[2]
Sensor 24 h Stability	±0.03 mm/m[1] ±0.01 mm/m[2]
Sensor	MEMS (Micro-Electro-Mechanical Systems) Accelerometer
Temperature Dependent Uncertainty	± 0.016 mm/m/°C (±0.001°/°C) , for ± 5° from vertical ± 0.033 mm/m/°C (±0.002°/°C) , for ± 15° from vertical
Temperature Accuracy	± 0.5 °C (0°C to 60°C) ± 1.0 °C (-40°C to 60°C)
Temperature Resolution	0.06 °C
Operating Temperature	-40 to 60°C (-40 to 140°F)
Dimensions	80 x 80 x 61mm (3.15 x 3.15 x 2.4 in.)

[1]: 99% Confidence Interval [2]: 68% Confidence Interval

SPECIFICATIONS