

MEMS Tilt Meter

IN-PLACE



Geosense® MEMS In-Place Tilt Meters are designed to measure uniaxial or biaxial tilt, which is measured from the plane(s) perpendicular from the base unit.

It is designed to be installed permanently in either the vertical or horizontal position by either bonding or bolting directly to a structure or mounting plate. Data is read via a cable with either a portable readout or connected into a data logger.

The tilt sensor is mounted within a rugged, heavy duty waterproof cast metal enclosure suitable for the harsh environments found within the construction and building industries.

Available as an analogue or digital (RS-485) version, it offers a range of output signals including voltage, milliamps and digital bus. The digital bus version allows several tilt meters to be daisy-chained together on a single cable over 1000 metres long.

Each unit is individually calibrated to provide the ultimate in system accuracy and repeatability and can be used in conjunction with WiSOS to provide a wireless monitoring solution.

Applications

For monitoring tilt in:

- ~ Retaining walls
- ~ Diaphragm walls
- ~ Concrete dams
- ~ Party walls
- ~ Structures
- ~ Bridge piers
- ~ Tunnels
- ~ Compensation grouting
- ~ Slopes
- ~ Piles

Features

- ~ Ultimate accuracy and repeatability
- ~ Uniaxial or biaxial sensors option
- ~ EMC-CE & LUL compliant
- ~ LSHF cable option
- ~ Horizontal or vertical mounting
- ~ Easy to install
- ~ Digital bus available (RS-485)
- ~ Analogue output
- ~ IP66 waterproof enclosure
- ~ Durable powder coating
- ~ Cost effective



LUL approved Product ID 3577





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Specifications

ITEM	IPTM-1-420	IPTM-2-420	IPTM-1-010	IPTM-2-010	IPTM-1-485	IPTM-2-485
Range	±15°	±15°	±15°	±15°	±15°	±15°
Axis	Uniaxial	Biaxial	Uniaxial	Biaxial	Uniaxial	Biaxial
Output	4-20mA	4-20mA	+/-5 Volts	+/-5 Volts	RS485	RS485
Resolution	5 arc sec	5 arc sec	5 arc sec	5 arc sec	2 arc sec	2 arc sec
Non linearity	±0.05% FS	±0.05% FS	±0.05% FS	±0.05% FS	±0.0125% FS	±0.0125% FS
Repeatability	±0.025% FS	±0.025% FS	±0.025% FS	±0.025% FS	±0.0125% FS	±0.0125% FS
Sensor	MEMS	MEMS	MEMS	MEMS	MEMS	MEMS
Excitation	8-15 V DC	8-15 V DC	8-15 V DC	8-15 V DC	8-15 V DC	8-15 V DC
Operating Temp	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
Dimensions	125x80x60mm	125x80x60mm	125x80x60mm	125x80x60mm	125x80x60mm	125x80x60mm

ACCESSORIES

Horizontal mounting plate

Vertical mounting bracket

MEMS analogue readout

Ultra rugged field PC

Digital interface RS-485

Ordering Information

- ~ Range
- ~ Axis
- ~ Output
- ~ Mounting
- ~ Readout



Specifications may change without prior notice