

UNIAXIAL TILTMETER

Model TUFF TILT 801

APPLICATIONS

Model 801 TUFF TILT Uniaxial Tiltmeter is ideal for structural load testing, monitoring of walls and foundation movement, surveillance of natural and manmade structures (bridges, dams, etc.) and machine positioning and control.

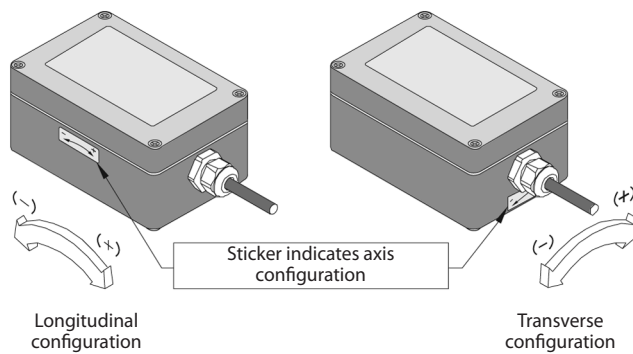
DESCRIPTION

The TUFF TILT is an economical uniaxial tiltmeter for a wide variety of monitoring and measurement applications. It incorporates a gravity-referenced electrolytic tilt transducer as the internal sensing element, offering unrivaled precision and long-term stability. Housed in a rugged NEMA 4X enclosure, this analog output tiltmeter may be used outdoors and in other wet or harsh environments, although the unit is not submersible.



FEATURES

- Easy to install
- Long-term stability
- High dynamic range
- Precision and durability



Longitudinal and Transverse Configurations

SPECIFICATIONS

MODEL	801-H HIGH-GAIN VERSION	801-S STANDARD VERSION	801-W WIDE-ANGLE VERSION
Angular range	±0.5°	±3°	±50°*
Scale factor	0.1°/ volt (single-ended)	0.6°/ volt (single-ended)	10°/ volt (single-ended)
Resolution	0.0001° (1.75 μradian)	0.0006° (10.5 μradian)	0.01°
Repeatability	0.0002°	0.001°	0.02°
Linearity	1% of F.S., typical	<2% of F.S., typical	0.5% of F.S., typical
Temperature coefficient			
Scale factor	Ks < 0.02% / °C, typ.	Ks < 0.02% / °C, typ.	Ks < 0.02% / °C, typ.
Zero shift	Kz = ±0.0002° / °C, typ.	Kz = ±0.0002° / °C, typ.	Kz = ±0.0002° / °C, typ.
Time constant (T)	1.75 s (2-pole Butterworth low-pass filter) (801-H and 801-S), 0.15 s (801-W)		
Power requirements	+8 to +18 VDC @ 8 mA, 250 mV peak-to-peak ripple max., reverse polarity protected		
Output channels			
Tilt	±5 VDC single-ended, ±10 VDC differential (both are provided)		
Temperature	-400 to +1000 mV, single-ended. Scale factor of temperature sensor = 0.1°C / mV, 0 mV = 0°C		
Operating temperature	-25 to +70°C NEMA 4X (IP-65) rated enclosure for outdoor applications		
Storage temperature	-30 to +100°C		
Cable	3 m, 6-conductor + one overall shield, PVC jacket, tinned ends		
Enclosure & Mounting	Painted, die-cast aluminum box, 120 × 80 × 60 mm Four 4.4 mm dia. mounting holes on 107 × 67 mm pattern		
Weight	0.6 kg		

* Greater ranges available upon request.

ORDERING INFORMATION

Please specify:

- Model
- Configuration (longitudinal or transverse)
- Cable: 3 m standard, additional cable available
- Readout instruments: Model 870, ADVisor, SENSLOG