

Tuff Tilt Digital

Uniaxial & Biaxial Tiltmeter

The Tuff Tilt Digital is an exciting new digital instrument for indoor and outdoor work requiring precision and rugged durability. It is excellent for continuous monitoring of structural

behavior, or short-term testing of machine and structural performance. It fills a gap between our economical MD900-T Digital Clinometer and our Model D711 Scientific Tiltmeter.



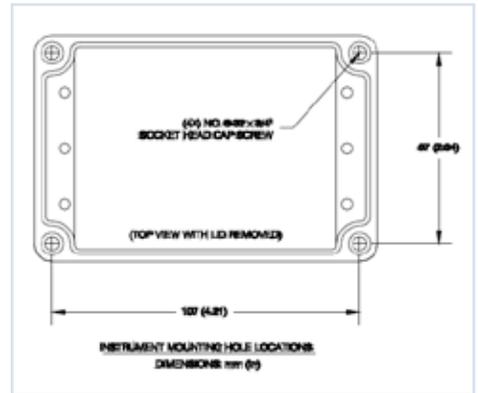
CONTINUOUS MONITORING

The Tuff Tilt Digital is offered with many powerful features, including: RS232 output, RS485 output, analog output or optional tilt switch output in the RS232 versions, biaxial or uniaxial measurement, and 16-bit A/D resolution. The serial data output is easily interfaced to many GPS receivers, spread spectrum radios, and wireless Ethernet converters. A powerful set of firmware commands enables the user to collect, process and store data, or to send data directly to external devices.

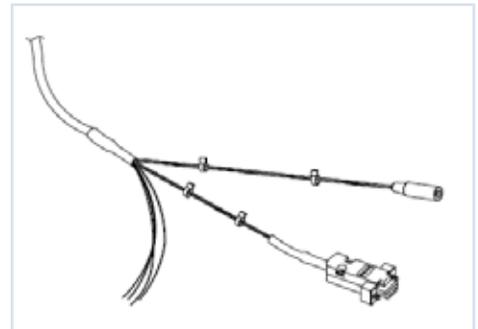


	TUFF TILT DIGITAL (STANDARD)	TUFF TILT DIGITAL (WIDE ANGLE)
ANGULAR RANGE	±3 degrees	±50 degrees (greater range available)
RESOLUTION	0.0001 degree	0.002 degree
REPEATABILITY	0.0003 degree (1 arc second), static	0.004 degree, static
TEMPERATURE COEF.	Zero: ±0.0002 degree/°C typical	Zero: ±0.004 degree/°C typical
CHANNELS	Single-axis or dual-axis with 2 orthogonal tilt channels, 1 temperature channel	
LINEARITY	< 0.1% of full span	
TIME CONSTANT	0.15 second	
DIGITAL OUTPUT	RS232 or RS485, transmit and receive Baud rate: 9600 (default), 19200, 28800, 57600, 115200, 230400 NMEA 0183 compatible (x, y, temperature, serial no.), plus other output strings	
OUTPUT DATA RATE	User-selectable from 10 samples/second to 1 sample/24 hours	
POWER REQ'TS	7 to 26 VDC @ 27 mA, 250 mV peak-to-peak ripple maximum, reverse polarity protected	
ENVIRONMENTAL	-25° to +70°C operational, -30° to +100°C storage. NEMA 4X (IP65)	
MOUNTING	Four no. 8 stainless steel mounting screws included	
MATERIALS	Die cast and painted aluminum	
CABLE & CONNECTOR	3m (10 ft), 6 conductors + one overall shield, PVC jacket. DB9 connector for digital I/O.	
SIZE & WEIGHT	120 x 80 x 60 mm (4.7x 3.2 x 2.4 inches), 0.6 kg (1.5 lb)	

* greater range available † Divide by 2 for differential scale factor.

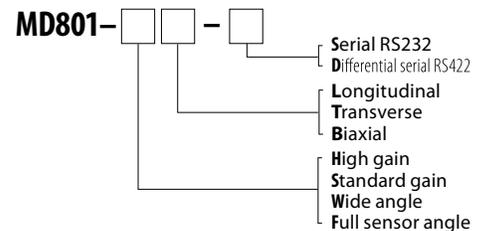


Mounting holes are accessed by removing lid of tiltmeter. Use 8-32 or 4 mm screws.



Cable termination details: Tinned ends (left) for power and optional analog or tilt switch output, DB9 connector for serial communications, and barrel connector for power input using optional power supply 00254-02.

ORDER CODES:



USEFUL ACCESSORIES:

- 70369 Extra cable
- 84051 Horizontal mounting plate
- 81439 Vertical mounting bracket
- 00254-02 Power supply (110-240 VAC)



environmental systems & services
8 River Street, Richmond VIC 3121 Australia
T + 61 3 8420 8999 | F + 61 3 8420 8900
geotechnical@esands.com | www.esands.com

