

Model 801 Tuff Tilt

Uniaxial Tiltmeter

The Model 801 Tuff Tilt Uniaxial Tiltmeter combines precision and durability in an economical instrument. It incorporates a gravity-referenced electrolytic tilt transducer as the internal sensing element,

delivering high dynamic range and long-term stability. Housed in a rugged weatherproof enclosure, this analog output tiltmeter may be used outdoors and in other wet environments.



TUFF TILT APPLICATIONS INCLUDE:

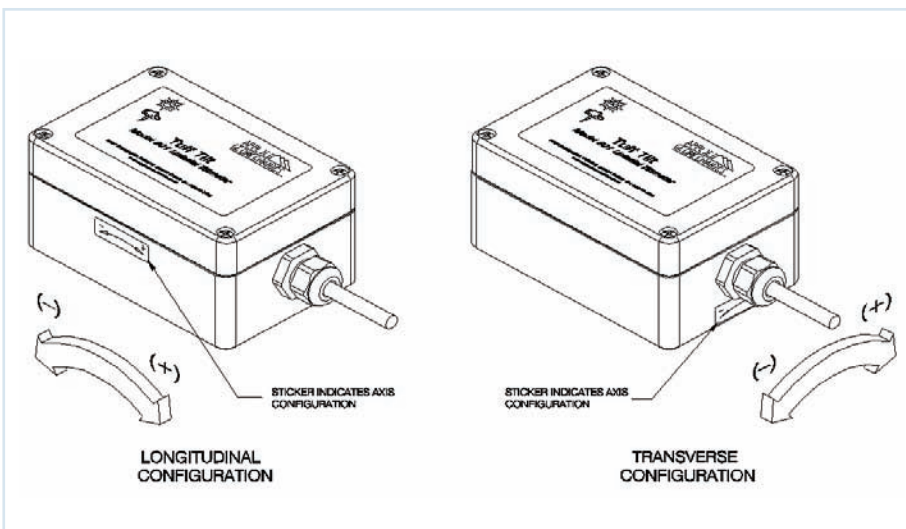
- Antenna leveling and tracking (Model 801-H)
- Monitoring of bridges and structures (Model 801-S)
- Rotary position of dam gates and other machinery (Model 801-W)



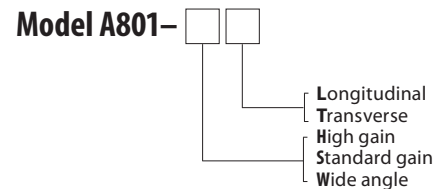
	MODEL 801-H HIGH-GAIN VERSION	MODEL 801-S STANDARD VERSION	MODEL 801-W WIDE-ANGLE VERSION
ANGULAR RANGE	±0.5 degrees	±3 degrees	±50 degrees*
SCALE FACTOR†	0.1°/ volt (single-ended)	0.6°/ volt (single-ended)	10°/ volt (single-ended)
RESOLUTION	<0.0001 degree (<1.75 μradians)	0.0006 degree (10.5 μradians)	0.01 degree
REPEATABILITY	<0.0002 degree	0.001 degree	0.02 degree
LINEARITY	1% of full span typical	<2% of full span typical	0.5% of full span typical
TEMPERATURE COEF.	Scale factor: KS < 0.02%/°C typ. Zero shift: KZ = ±0.0002 degree/°C	KS < 0.02%/°C typ. KZ = ±0.0002 degree/°C typ.	KS < 0.02%/°C typ. KZ = ±0.002 degree/°C typ.
TIME CONSTANT, T	0.35 second (settling time: 1.75 seconds) 2-pole Butterworth low-pass filter, faster response available		0.03 second (settling time: 0.15 second)
TILT OUTPUT	± 5 VDC single-ended, ±10 VDC differential (both provided)		
TEMPERATURE OUTPUT	0.1°C/mV (single-ended), -40° to +100°C, ±0.75°C accuracy, 0°C = 0 mV		
OUTPUT IMPEDANCE	270 Ohms, short circuit and surge protected		
POWER REQ'TS.	+8 to +18 VDC @ 8 mA, 250 mV peak-to-peak ripple max., reverse polarity protected		
ENVIRONMENTAL	-25° to +70° C operating, -30° to +100° C storage; NEMA 4X (IP-65) (wet conditions, nonsubmersible)		
ENCLOSURE & MOUNTING	Painted, die-cast aluminum box, 120 x 80 x 60 mm. Four 4.4 mm dia. mounting holes on 107 x 67 mm (4.21 x 2.64 in) centers		
CABLE	3m (10 ft), 6-conductor + one overall shield, PVC jacket, tinned ends		
WEIGHT	0.6 kg (1.5 lb)		

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

CONNECTOR PIN	FUNCTION	WIRE COLOR
A	+12 VDC	Red
B	Signal Ground	White
C	Power Ground	Black
D	+Tilt Out	Green
E	-Tilt Out	Blue
F	Temperature Out	Yellow



ORDER CODES:



USEFUL ACCESSORIES:

- 70369** Additional cable, please specify length
- 62204** 6-pin male receptacle (connector) for tiltmeter cable
- 62202** 6-socket female plug (mates to P/N 62204)
- 81439** Mounting bracket for vertical surfaces, with mounting hardware
- 84051** Horizontal mounting plate (speeds installation) with mounting hardware
- Model 870** Readout module for digital display (requires P/N 62204 & multimeter)
- ADVisor** Handheld readout unit & datalogger



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