



“Tuff Tilt” Uniaxial Tiltmeter Model 2705 - AGI - 801 Series

FEATURES

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 analogue output tiltmeter may be used outdoors and in other wet environments.



APPLICATIONS

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)

Specifications

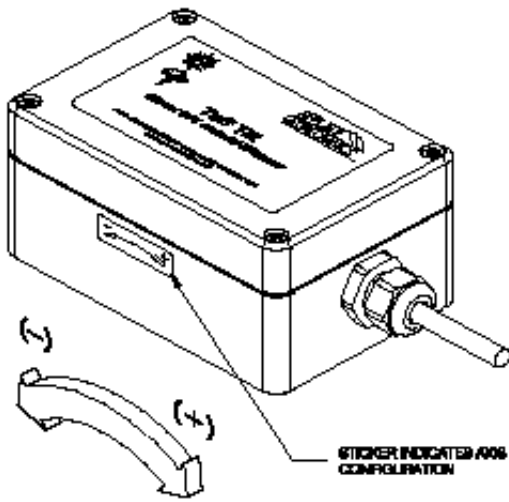
	Model 801-H High-Gain Version	Model 801-S Standard Version	Model 801-W Wide-Angle Version
ANGULAR RANGE	± 0.5 degrees	± 3 degrees	± 50 degrees
SCALE FACTOR	0.1° / volt (single-ended)	0.6° / volt (single-ended)	10° / volt (single-ended)
RESOLUTION	<0.0001 degree (<1.75m radians)	<0.0006 degree (10.5m radians)	0.01 degree
REPEATABILITY	<0.0002 degree	0.001 degree	0.02 degree
LINEARITY	1% of F.S. typical	<2% of F.S. typical	0.5% of F.S. typical
TEMPERATURE COEF.	Scale Factor: $K_s < 0.02\% / ^\circ\text{C}$ Zero Shift: $K_z = 0.0002 \text{ degree} / ^\circ\text{C}$	$K_s < 0.02\% / ^\circ\text{C}$ $K_z = \pm 0.0002 \text{ degree} / ^\circ\text{C}$	$K_s < 0.02\% / ^\circ\text{C}$ $K_z = \pm 0.002 \text{ degree} / ^\circ\text{C}$
TIME CONSTANT, T	1.75 seconds (2-pole Butterworth low-pass filter). Faster response available		0.15 second
TILT OUTPUT	± 5V DC single-ended; ± 10V DC differential (both provided)		
TEMPERATURE OUTPUT	0.1°C / mV (single-ended); -40 to +100°C, ±0.75°C accuracy, 0°C = 0mV		
OUTPUT IMPEDANCE	270 ohms; short circuit and surge protected		
POWER REQ'S	+6 to +18V DC @ 8mA, 250mV 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, non-submersible)		
ENCLOSURE & MOUNTING	Painted, die-cast aluminium box, 120 x 80 x 60 mm. Four 4.4 mm dia. mounting holes on 107 x 67 mm. centres		
CABLE	3 m, 6-conductor + one overall shield, PVC jacket, tinned ends		
WEIGHT	0.6 kg		

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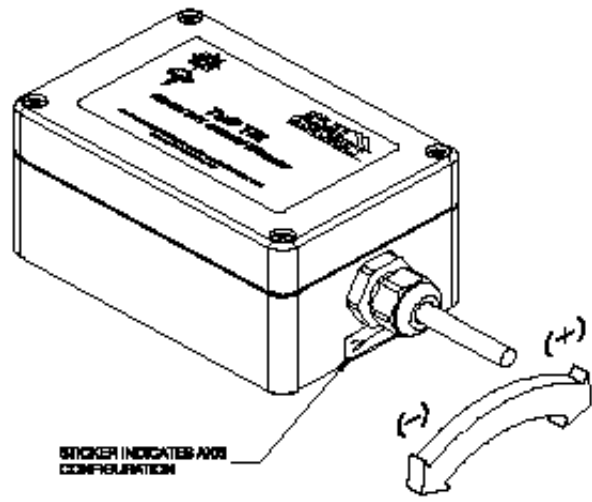


FOR FURTHER INFORMATION

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



LONGITUDINAL CONFIGURATION



TRANSVERSE CONFIGURATION

Details

Wire Colour	Function	Connector Pin
Red	+12V DC	A
White	Signal Ground	B
Black	Power Ground	C
Green	+Tilt Out	D
Blue	-Tilt Out	E
Yellow	Temperature Out	F

Ordering Information

Model 801-H/L	High-Gain Version, Longitudinal
Model 801-H/T	High-Gain Version, Transverse
Model 801-S/L	Standard Version, Longitudinal
Model 801-S/T	Standard Version, Transverse
Model 801-W/L	Wide-Angle Version, Longitudinal
Model 801-W/T	Wide-Angle Version, Transverse

Accessories

Part No.	Feature
70369	Additional cable, please specify length
62204	6-pin male receptacle (connector) for tiltmeter cable
62202	6-socket female plug (mates to PIN 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 PIN 62204 & multimeter)
ADVisor	Handheld readout unit & datalogger

CONVERSION FACTORS: 1 degree = 3600 arc seconds = 17453 microradians

Due to on-going design improvements and reviews, we reserve the right to amend product and specifications without prior notice



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