

Model A801 “Tuff Tilt” Analog Tiltmeter

The model 801 “Tuff Tilt” Analog Tiltmeter combines high precision and durability in an economical instrument package. Using an absolute gravity referenced electrolytic sensor, the A801 delivers superior measurement accuracy with virtually no long-term drift, and high-gain units are sensitive to <math><0.0017\text{ mm/m}</math> or better. Output is a stable $\pm 5\text{ VDC}$ (±10 VDC differential), which can be read with any VDC input datalogger. All units are rated IP65 waterproof for advanced protection from the elements. Use the A801 “Tuff Tilt” for structural monitoring, angle measurement and control, platform leveling, and more.



	High-Gain	Standard	Wide-Angle
Angular Range	$\pm 0.5^\circ$	$\pm 3.0^\circ$	$\pm 50^\circ$
Resolution	$<0.0001^\circ$	0.0006°	0.01°
Repeatability	$<0.0002^\circ$	0.001°	0.02°
Non-Linearity	1%	2%	0.5%
Scale Factor	$0.1^\circ/\text{V}$	$0.6^\circ/\text{V}$	$10^\circ/\text{V}$
Time Constant	1.75 sec (2-pole Butterworth low-pass filter)		0.15 sec
Kz Temp Coefficient ($^\circ/\text{C}$)	$\pm 0.0002^\circ/\text{C}$ (typical)		
Ks Temp Coefficient ($\%/^\circ\text{C}$)	0.02%/°C (typical)		
Output	$\pm 5\text{VDC}$ (single ended); $\pm 10\text{VDC}$ (differential)		
Channels	Tilt, Temperature		
Output Impedance	270 ohms		
Temperature Output	$0.1^\circ\text{C}/\text{mV}$ typical (single ended; $0^\circ\text{C} = 0\text{mV}$)		
Power	8-18 VDC @ 8mA, 250 mV ripple max, reverse polarity protected		
Environmental	-25 to +70 operation; -30 to +100 C storage. IP65		
Dimensions	120 x 80 x 60 mm, 0.6 kg (1.5 lb.)		
Materials	Diecast painted aluminum,		
Cable	3m (10 ft) 6 conductor + one overall shield, PVC jacket, tined ends		

Specifications subject to change without notice on account of continued product development

Ordering Code:

A801 –



B: Biaxial
L: Longitudinal
T: Transverse

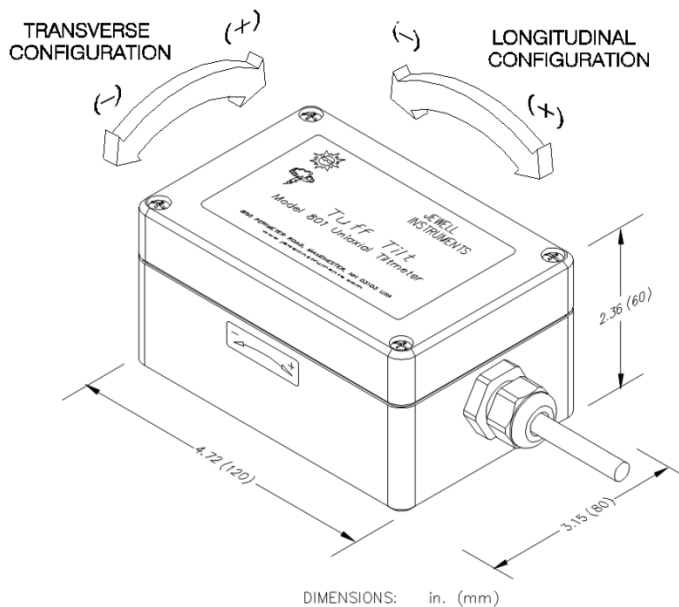
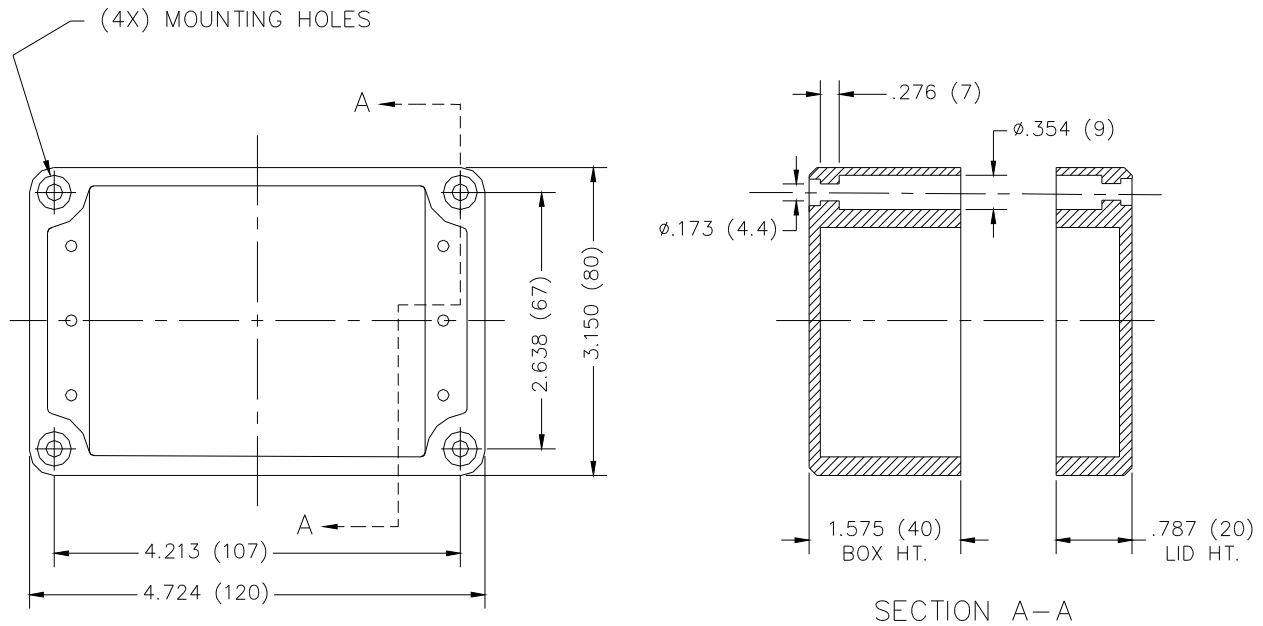
H: High Gain ($\pm 0.5^\circ$)
S: Standard Gain ($\pm 3^\circ$)
W: Wide Angle ($\pm 50^\circ$)

Wiring/Pin-out:

Color	Function
Red	V+
White	Signal Ground
Black	Power GND
Green	+Tilt
Blue	-Tilt (differential)
Yellow	Temperature

Model A801 "Tuff Tilt" Analog Tiltmeter

Model A801 "Tuff Tilt" Enclosure and Mounting Hole Dimensions



Accessories:

Part No.	Description
81439	Mounting bracket for vertical surfaces
84051	Mounting plate for horizontal surfaces
70369	Power/signal cable, 6-conductor (specify total length on order)
62204	Optional 6-pin male receptacle (installed on tiltmeter cable)
62202	Optional 6-socket in-line plug (mates to P/N 62204 connector)
870/DMM	Optional 870 Readout Module with Digital Multimeter Display