

Model 701-2 Platform Tiltmeter

(Biaxial)

These platform tiltmeters are our most popular design for rapid installation and precision. Using their built-in invar leveling legs, they can be set up and operating on any hard horizontal surface within minutes.

The two orthogonal tilt sensors parallel the right-angle sides of the base plate. Each tiltmeter includes a temperature sensor. The internal electronics drive signals over cable lengths greater than 1000m.

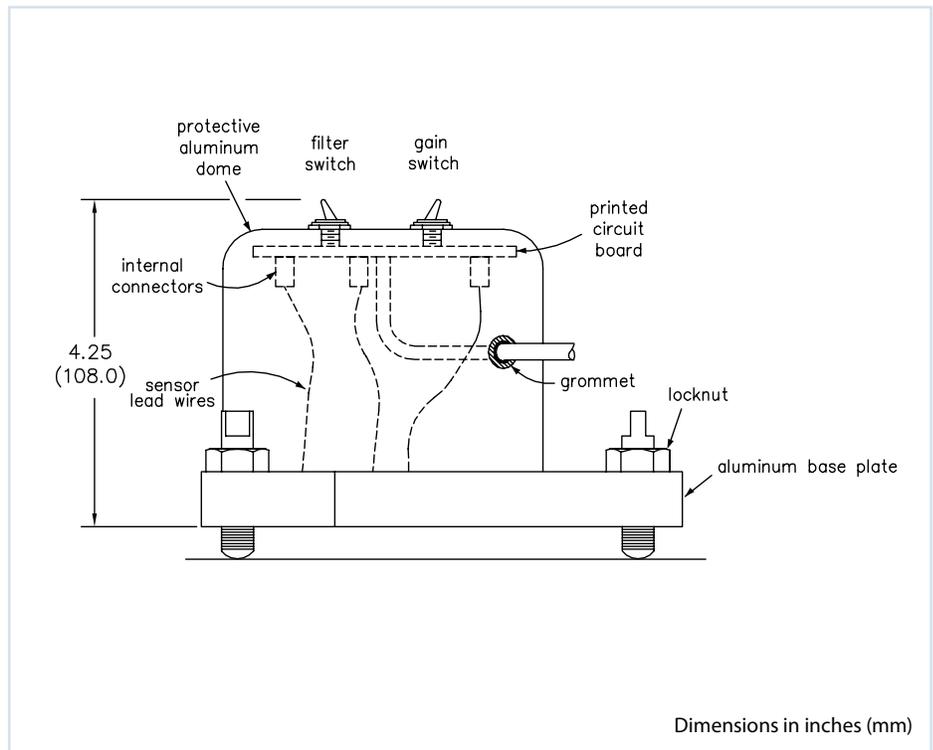


RAPID INSTALLATION AND PRECISION

Model 701-2 has switchable gain and low-pass filter settings that give you a range of measurement options. Sensors and electronics are mounted in a rugged housing that also provides electrical shielding. Model 701-2 is water resistant for protection against light rain and splashes. It is the preferred choice for structural load testing, volcano monitoring, and laboratory and observatory work.



Model 701-2 Platform Tiltmeter



Side View Model 701-2 Platform Tiltmeter

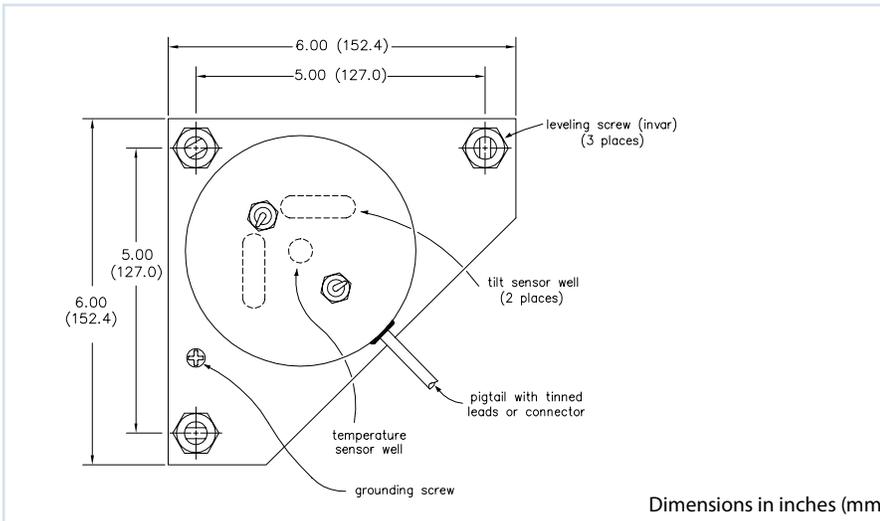
**MODEL 701-2A
HIGH-GAIN VERSION**

**MODEL 701-2B
MID-RANGE VERSION**

ANGULAR RANGE	Low-Gain Setting: $\pm 8000 \mu\text{radians}^*$ (± 0.46 degree) High-Gain Setting: $\pm 800 \mu\text{radians}$ (± 0.046 degree)	± 8 degrees ± 0.8 degree
SCALE FACTORS	Low-Gain Setting: \dagger High-Gain Setting: \dagger	1 degree/Volt 0.1 degree/Volt
RESOLUTION	0.1 μradian	1 μradian
REPEATABILITY	1 μradian (static)	2 $\mu\text{radians}$ (static)
LINEARITY	High-gain setting: 0.2% of full span Low-gain setting: 2% of full span	High-gain setting: 0.2% of full span Low-gain setting: 1.5% of full span
TIME CONSTANTS	Filter on: 7.5 sec, Filter off: 0.5 sec	Filter on: 7.5 sec, Filter off: 0.4 sec
TEMPERATURE COEFFICIENTS	Scale factor: $K_s = +0.05\%/^{\circ}\text{C}$ typical Zero shift: $K_z = \pm 3 \mu\text{radians}/^{\circ}\text{C}$ typical	$K_s = +0.05\%/^{\circ}\text{C}$ typical $K_z = \pm 0.001$ degree/ $^{\circ}\text{C}$ typical
TILT OUTPUT	Each axis: ± 8 Volts DC (single-ended) and ± 16 Volts DC (differential)	
TEMPERATURE OUTPUT	0.1 $^{\circ}\text{C}/\text{mV}$ (single-ended), -40° to $+100^{\circ}\text{C}$, $\pm 0.75^{\circ}\text{C}$ accuracy, $0^{\circ}\text{C} = 0$ mV	
OUTPUT IMPEDANCE	270 Ohms, short circuit and surge protected	
POWER REQUIREMENTS	± 11 to ± 15 VDC @ ± 11 and -6 mA, 250 mV peak-to-peak ripple maximum, reverse polarity protected Motor Control Unit. Sensors can be adjusted through mechanical range ± 7 degrees	
ENVIRONMENTAL	-25° to $+70^{\circ}\text{C}$ operation, -30° to $+100^{\circ}\text{C}$ storage; 0-90% humidity, noncondensing	
MOUNTING	Tiltmeter stands on three adjustable invar legs	
MATERIALS	Anodized and painted aluminum, invar legs, brass nuts	
CABLE	3m (10 ft) multiconductor cable + overall shield, PVC jacket, connectors included	
SIZE & WEIGHT	6 x 6 x 4 inches (15 x 15 x 10 cm), 3 lb (1.4 kg)	

* 1 degree = 3600 arc seconds = 17453 $\mu\text{radians}$ (microradians) \dagger Single-ended outputs; divide by 2 for differential scale factors.

Top View Model 701-2 Platform Tiltmeter



ORDER CODES:

Model 701-2A High-Gain Version
Model 701-2B Mid-Range Version

USEFUL ACCESSORIES:

- 70304** Additional cable, please specify length
- 62301** Female panel receptacle (mates to P/N 62302 connector on tiltmeter cable)
- 62304** Extra female in-line receptacle (one is included with tiltmeter)