

Model 711-2 Floor Mount Tiltmeter Model 716-2 Wall Mount Tiltmeter (Biaxial)

These precision biaxial tiltmeters bolt or clamp to any surface and are well suited for areas of heavy traffic or vibration. They are identical to our popular Model 701-2 Platform Tiltmeter, but have 0.5-inch (12.7-mm) diameter holes in their three corners instead of adjustable legs. The holes fit over threaded stainless steel studs, provided with each order. The tiltmeter is double-nutted to the studs after they have been firmly anchored in the mounting surface.

The internal electronics of Models 711-2 and 716-2 will drive cable lengths of 1000m. These tiltmeters are widely used for structural monitoring, load testing, and precision alignment of antennae and machinery.

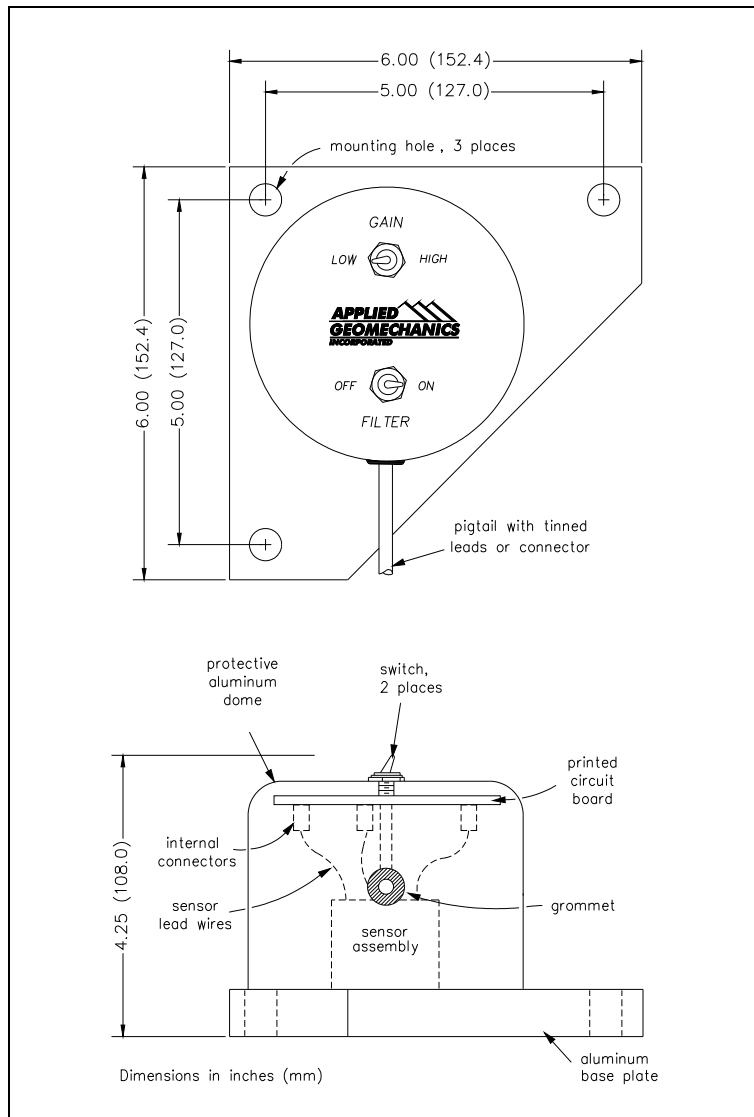


| | Models 711-2A & 716-2A High-Gain Version | Models 711-2B & 716-2B Mid-Range Version | Models 711-2C & 716-2C Wide-Angle Version |
|----------------------|--|---|---|
| ANGULAR RANGE | | | |
| Low-Gain Setting: | ±8000 μradians* (±0.46 degree) | ±8 degrees | 60 degrees |
| High-Gain Setting: | ±800 μradians (±0.046 degree) | ±0.8 degree | ±8 degrees |
| SCALE FACTORS | | | |
| Low-Gain Setting: † | 1 μradian/mV | 1 degree/Volt | 10 degrees/Volt |
| High-Gain Setting: † | 0.1 μradian/mV | 0.1 degree/Volt | 1 degree/Volt |
| RESOLUTION | 0.1 μradian | 1 μradian | 1 arc second |
| REPEATABILITY | 1 μradian (static) | 2 μradians (static) | 2 arc seconds (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 | High-gain setting: 0.5% of full span Low-gain setting: 2% 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 | Filter on: 7.5 sec, Filter off: 0.1 sec |
| TEMPERATURE COEF. | Scale factor: $K_s = +0.05\%/^{\circ}\text{C}$ typ. Zero shift: $K_z = \pm 3 \mu\text{radians}/^{\circ}\text{C}$ typ. | $K_s = +0.05\%/^{\circ}\text{C}$ typical $K_z = \pm 0.001 \text{ degree}/^{\circ}\text{C}$ typical | $K_s = +0.13\%/^{\circ}\text{C}$ typical $K_z = \pm 0.004 \text{ degree}/^{\circ}\text{C}$ typical |
| TILT OUTPUT | Each axis: ±8 Volts DC (single-ended) and ±16 Volts DC (differential) | | |
| 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. | ±11 to ±15 VDC @ +11 and -6 mA, 250 mV peak-to-peak ripple maximum, reverse polarity protected | | |
| ENVIRONMENTAL | -25° to +70° C operation, -30° to +100° C storage; 0-90% humidity, noncondensing | | |
| MOUNTING | Three 0.5-inch (12.7 mm) mounting holes; tiltmeter fastens to stainless steel mounting studs (included) | | |
| MATERIALS | Anodized and painted aluminum | | |
| 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 μradians (microradians)

† Single-ended outputs; divide by 2 for differential scale factors.

Models 711-2 and 716-2 Biaxial Tiltmeters



Ordering Information

| | |
|--------------|---------------------------------|
| Model 711-2A | Floor Mount, High-Gain Version |
| Model 711-2B | Floor Mount, Mid-Range Version |
| Model 711-2C | Floor Mount, Wide-Angle Version |
| Model 716-2A | Wall Mount, High-Gain Version |
| Model 716-2B | Wall Mount, Mid-Range Version |
| Model 716-2C | Wall Mount, Wide-Angle Version |

Call if Ceiling Mount is required.

Useful Accessories

| Part No. | Feature |
|--------------|--|
| 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) |
| Model 718-AL | Mounting plate, 8.5 x 9 in (216 x 229 mm); speeds installation |
| Model 719-AL | Universal mounting bracket, attaches Model 711-2 to wall or Model 716-2 to floor |
| 84410 | Extra mounting stud assembly, specify quantity required |
| Model 771 | Digital Readout Unit |