Engineering Tiltmeter
Model 2721-AG-800 Series

FEATURES

- ***High Precision***
- ***Robust Construction***
- ***Uniaxial Sensor***
- ***Easy Installation at site***
- ***Manual Reading or automatic recording using dataloggers***

APPLICATIONS

Model 2721-800 Tiltmeters are ideal for:

- *Structural behaviour tests*
- *Automated inspection and surveillance*
- *Detection of hazardous conditions*
- *Machine positioning and control.*

General

Model 2721-800 Tiltmeter is an economic uniaxial tiltmeter for a wide variety of monitoring and measurement applications. It incorporates a high-precision electrolytic tilt transducer as the internal sensing element, offering resolution and stability previously unavailable in a practical engineering instrument.

Measured angular movement is referenced to the unchanging vertical gravity vector, eliminating the time and expense of locating an external datum.

Description

Model 2721-800 Tiltmeter is rugged and field-proven - intended for use in harsh outdoor environments, the laboratory or factory floor. High reliability components and surge protection enhance performance under electrically noisy or transient-prone conditions. A low-pass filter removes vibration effects for static measurements. Optional unfiltered output is available for dynamic measurement requirements. A built-in temperature sensor provides the data necessary for analysis of thermal deformation and stresses.

The tiltmeter is quickly installed by bolting or clamping to any vertical or horizontal surface. Tiltmeter output is easily interfaced to any conventional recording system.

For rapid levelling or on-the-spot reading, use the Model 870 Readout module. This low-cost module plugs into any digital multimeter to display the tiltmeter output. Model 870 reads tilt and temperature, and checks its own internal batteries.

When someone asks, 'Did it move, or didn't it?' get the answer with a Model 2721-800 tiltmeter. Call today for solutions to your engineering challenges.

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FOR FURTHER INFORMATION
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Specifications—Model 2721-800 Tiltmeter

Angular range	High-gain option: ±0.5 degree; wide angle option: ±20 degrees
Sensitivity, repeat-ability	High-gain option: 0.0001 degree (1.75 microradian) or better; wide-angle option: 0.004 degree (.24 arc minute) or better
Scale factor	High-gain option: 0.1 degree per volt (single ended) and 0.05 degree per volt (differential); wide-angle option: 4.0 degrees per volt (single-ended) and 2.0 degrees per volt (differential). Other scale factors may be specially ordered. Each tiltmeter has both single-ended and differential outputs.
Linearity	High-gain option: 2% at half range, 5% at full range; wide-angle option: 1% at half range, 2% at full range
Output voltage range	±5 VDC single-ended and ±10 VDC differential
Filtering	2-pole Butterworth low-pass filter. Roll-off – 6 db per octave. 90% settling time – 5 seconds. Other setting times may be specially ordered.
Temperature output	0.1°C per millivolt (single ended output) over range of -40° to +100°C
Output impedance	270 ohms, short circuit and surge protected
Power requirements	+7.5 to +16 VDC and –7.5 to –16 VDC @ 6mA Typical; 250 mV peak-to-peak ripple max
Environmental	-25° to +70°C operational, -30°C to +100°C storage, 0 to 100% humidity
Connector	6-pin quarter-turn military-style connector on case, sealed with O-ring
Mounting	Available in floor, wall or ceiling mount style (specify model). Installation is by bolting or clamping to surface, or fastening to threaded stainless steel studs anchored in surface. Tiltmeter can be adjusted on studs for levelling. Mounting studs, nuts and washers are supplied with each tiltmeter.
Weight	1.4 kg (3 lbs)
Materials	ABS plastic

Specifications—Model 2751-870 Readout Module

Size	111 x 62 x 32 mm (4.4 x 2.4 x 1.3 inches) with 1.2m (4 ft) cable
Weight	285g (0.62 lbs) including batteries
Materials	ABS plastic
Power	Two 9-volt transistor radio batteries

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