

# Models 755 & 756 Miniature Tilt Sensors

High-Gain and Mid-Range

The high-precision sensors in our 500- and 700-Series Tiltmeters are available as standalone modules for applications with size or weight constraints. These

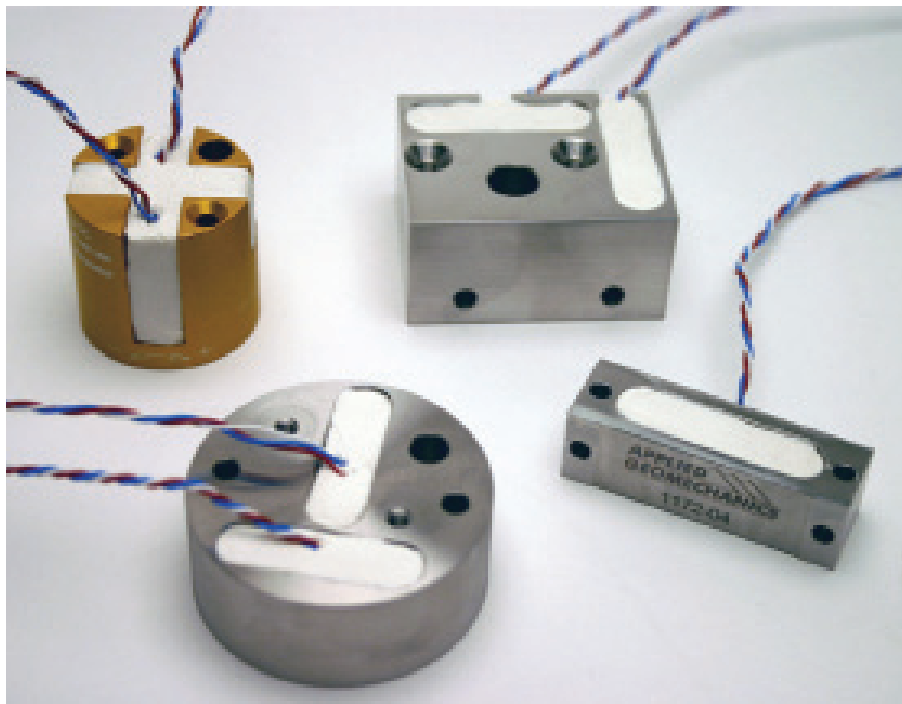
small uniaxial and biaxial modules attach directly to the elements you want to measure, without unbalancing them or affecting their performance.



## MINIATURE TILT SENSORS

Models -1129, -1150 and -1172 also are available in vacuum-compatible versions that do not outgas. All biaxial units except the vacuum-compatible versions include a temperature sensor.

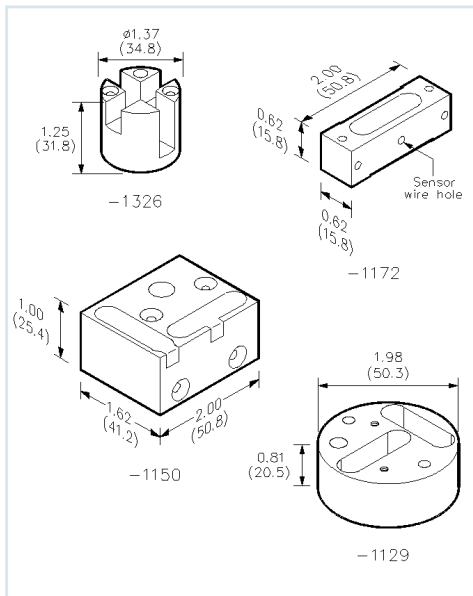
Miniature Tilt Sensors are operated by a variety of Applied Geomechanics signal conditioners that may be located as far as 100 meters from the sensors.



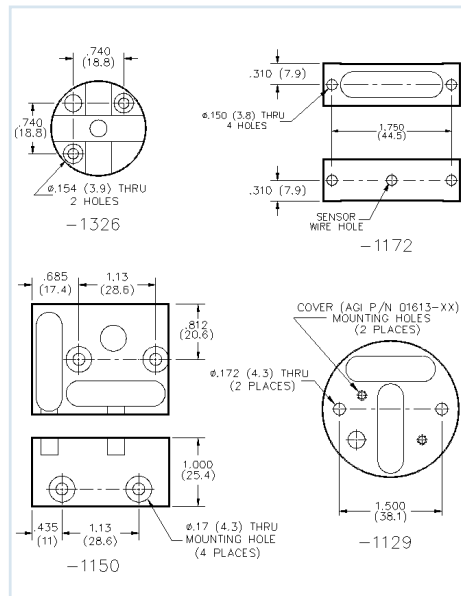
	755-SERIES HIGH-GAIN TYPE	756-SERIES MID-RANGE TYPE
<b>TOTAL RANGE *</b>	±0.9 degree	±10 degrees
<b>RESOLUTION *</b>	0.1 microradian (0.02 arc second)	1.0 microradian (0.2 arc second)
<b>REPEATABILITY</b>	1 microradian (0.2 arc second)	2 microradians (0.4 arc second)
<b>LINEARITY</b>	1% of half span, 7% of full span (typical)	0.5% of half span, 2% of full span (typical)
<b>NATURAL FREQUENCY</b>	0.8 Hz	1.3 Hz
<b>TIME CONSTANT</b>	0.5 second	0.4 second
<b>ENVIRONMENTAL</b>	-8°C to +80°C operation and storage, -25°C version available.	-25°C to +80°C operational and storage, wide ranges available; 0 to 100% humidity
<b>TEMPERATURE COEF. (Typical)</b>	Scale Factor: +0.04%/°C, Zero: ±3 μrad/°C	Scale Factor: +0.05%/°C, Zero: ±10 μrad/°C
<b>CONNECTIONS</b>	12-inch (30 cm) wires with tinned ends or mini connectors; 1-meter Kapton wire leads on vacuum-compatible units	
<b>MATERIALS</b>	304 stainless steel enclosure. Gold anodized 6061-T6 aluminum also available on request.	
<b>SIGNAL CONDITIONING</b>	Model 781 Bench-top Unit, Model 786 Rack Mount Unit, Model 84800 Card (1-channel), Model 84828 Card (1-channel), Model 83162 Card (2-channel), or IRIS-SC Tilt Switch and Controller.	

\*Dependent on signal conditioner settings.

MODEL	CHANNELS	MOUNTING	DIMENSIONS	WEIGHT
-1129	2 tilt, 1 temp. (biaxial)	Horiz. surface or vert. tube; hole dia.= 0.18" (4.4 mm)	1.98" dia. Cylinder x .75" high (50.3 x 19.1 mm)	9.2 oz (261 g)
-1150	2 tilt, 1 temp. (biaxial)	Horiz. or vert. surface; hole dia.= 0.18" (4.4 mm)	1.62" x 2.00" x 1.00" (41.2 x 50.8 x 25.4 mm)	11.5 oz. (326 g)
-1172	1 tilt (uniaxial)	Horiz. or vert. surface; hole dia.= 0.17" (4.3mm)	2.00" x 0.62" x 0.62" (50.8 x 15.7 x 15.7 mm)	2.4 oz. (67 g)
-1326	2 tilt, 1 temp. (biaxial)	Horiz. surface or vert. tube; mounting hole dia.= 0.15" (3.9 mm)	1.37" dia. cylinder x 1.25" high (34.8 x 31.8 mm)	2.8 oz. (80 g)



Miniature Tilt Sensors Dimensions



Mounting Hole Information

#### ORDER CODES:

- 755-VAC** High gain with vacuum compatibility
- 756-VAC** Mid range with vacuum compatibility

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