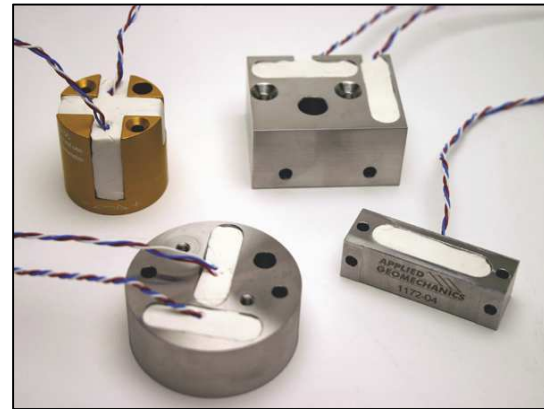


# Model 755-High-gain , 756-Mid-range Miniature Tilt Sensors



The high-precision sensors in our 500- and 700-Series Tiltmeters are available as standalone modules for applications with size or weight constraints. Small and light, 755- and 756- sensors mount directly to critical system components, and are ideal for precision measurement and control applications where space is limited. Units are also available non-outgassing (-VAC) versions for specialized vacuum applications. Standard biaxial modules also include a LMC35Z temperature sensor (not available for -VAC versions).

For peak performance, use your Miniature Tilt Sensors with Jewell's precision signal conditioning electronics. All Miniature Tilt Sensors include calibration when ordered with Jewell electronics.



	755- Series High-gain Type	756- Series Mid-range Type
Total Range (max) <sup>1</sup>	±0.5°	±10°
Linear Range	±0.25°	±5°
Resolution	<0.1 μradian (0.02 arc sec)	1.0 μradian (0.2 arc sec)
Repeatability	1 μradian (static)	2 μrad (static)
Non-Linearity (typical) <sup>2</sup>	1% half span (7% full span)	0.5% half span (2% full span)
Natural Frequency	0.8 Hz	1.3 Hz
Time Constant	0.5 sec	0.4 sec
Kz Temp Coefficient (bias/°C) <sup>4</sup>	±3 μrad/°C (typical)	±10 μrad/°C (typical)
Ks Temp Coefficient (%/°C) <sup>3 &amp; 4</sup>	0.04%/°C (typical)	0.05%/°C (typical)
Environmental	-25 to +80°C operation and storage, non-submersible	
Dimensions	See table	
Materials	304 SS (Anodized Al available on request)	

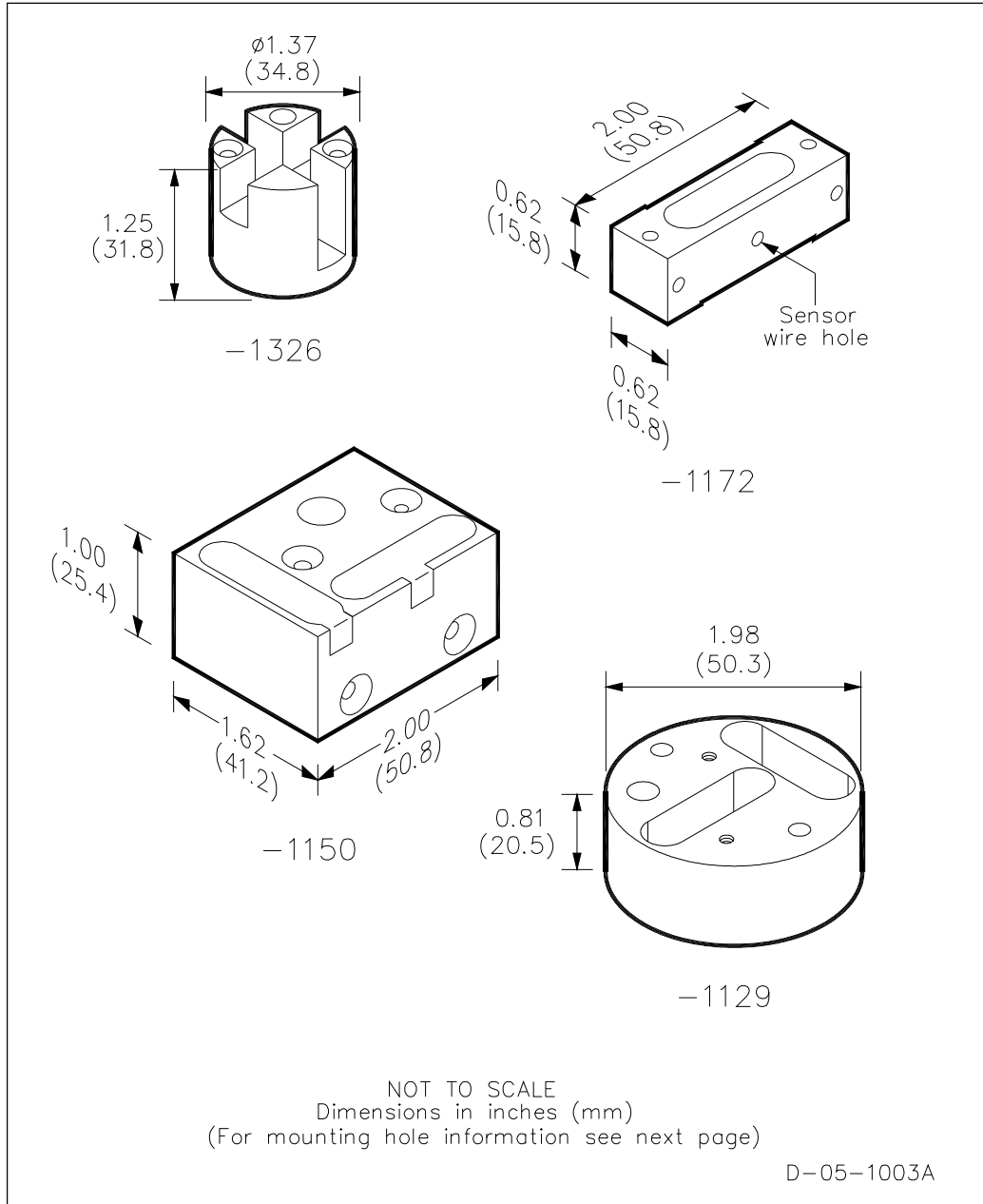
*Specifications subject to change without notice on account of continued product development; <sup>1</sup>Custom ranges available; <sup>2</sup>Max non-linearity from BFSL drawn through calibration curve, to 0.05% linearity with 5<sup>th</sup> order polynomial; <sup>3</sup>Ks = % change in scale factor per °C typical; <sup>4</sup>For exact Kz & Ks coefficients, we can offer custom temperature characterization for multiple temperature points (additional changes will apply, please contact Jewell for details)*

## Ordering Code:

Model No.	Description
755-1172	High-gain Miniature Tilt Sensor, Uniaxial, 304 SS
755-1150	High-gain Miniature Tilt Sensor, Biaxial, 304 SS, Square
755-1129	High-gain Miniature Tilt Sensor, Biaxial, 304 SS, Round
755-1326	High-gain Miniature Tilt Sensor, Biaxial, Anodized Al, Stacked Assembly
756-1172	Mid-range Miniature Tilt Sensor, Uniaxial, 304 SS
756-1150	Mid-range Miniature Tilt Sensor, Biaxial, 304 SS, Square
756-1129	Mid-range Miniature Tilt Sensor, Biaxial, 304 SS, Round
756-1326	Mid-range Miniature Tilt Sensor, Biaxial, Anodized Al, Stacked Assembly

# Model 755-High-gain , 756-Mid-range Miniature Tilt Sensors

**Dimensions:**



Model No.	Tilt Channels	Mounting Holes	Dimensions	Weight*
-1129	X-tilt, Y-tilt	dia.= 0.17" (4.3 mm)	1.98" O.D. x .81" high (50.3 x 20.5 mm)	5.8 oz. (164 g)
-1150	X-tilt, Y-tilt	dia.= 0.17" (4.3 mm)	1.62" x 2.00" x 1.00" (41.2 x 50.8 x 25.4 mm)	11.5 oz. (326 g)
-1172	Single-axis	dia.= 0.15" (3.8mm)	2.00" x 0.62" x 0.62" (50.8 x 15.8 x 15.8 mm)	2.4 oz. (67 g)
-1326	X-tilt, Y-tilt	dia.= 0.15" (3.9 mm)	1.37" O.D. x 1.25" high (34.8 x 31.8 mm)	2.8 oz. (80 g)

\*Weights nominal for 304 SS enclosure (standard)

**Mounting Hole Dimensions:**

