






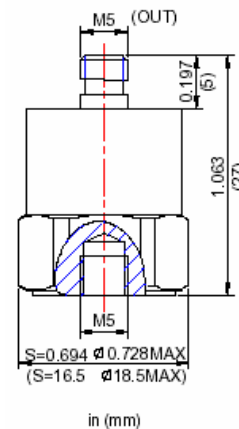
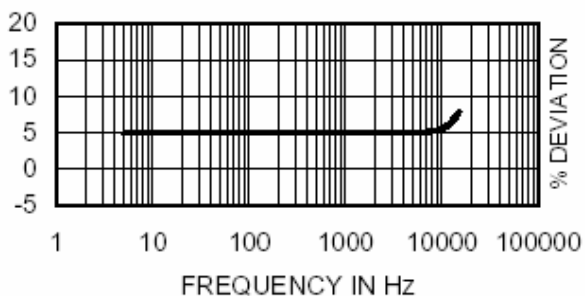
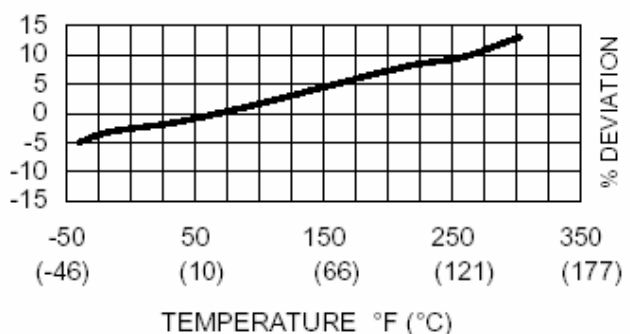
**PIEZOELECTRIC ACCELEROMETER****MODEL: CA-YD-107**

-  **High Sensitivity**
-  **Frequency Response to 6 KHz**
-  **Resonance Frequency at 25 KHz**
-  **Top Connector**
-  **Stud Mounted**

**Description**

The Sensors Model 107 is a stud mounted piezoelectric accelerometer designed for general vibration measurement on structures and objects. The sensor design is sealed against external contamination. The accelerometer is a self-generating device that requires no external power source for operation.

The Model 107 exhibits high resonance frequency. Signal ground is connected to the outer case of the unit. When used with an isolated mounting stud, the accelerometer is electrically isolated from ground. The accelerometer features a M5 top connector that is used with low-noise coaxial cable for error-free operation.

**Typical Amplitude Response****Typical Temperature Response**

**SPECIFICATIONS**

The following performance specifications conform to ISA-RP-37.2 (1964) and are typical values, referenced at +75°F (+24°C) and 100 Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

		UNITS
<b>DYNAMIC CHARACTERISTICS</b>		
Axial Sensitivity	pC/g	55 (50 minimum)
Transverse Sensitivity	%	≤ 5
Frequency Response		See Typical Amplitude Response
Resonance Frequency	Hz	25,000
Amplitude Response [1]		
± 5 %	Hz	1 – 5,000
± 1 dB	Hz	0.5 – 6,000
Temperature Response		See Typical Temperature Response
Amplitude Linearity	%	< 1
<b>ELECTRICAL CHARACTERISTICS</b>		
Output Polarity		Acceleration directed from the base into the transducer is defined as positive
Resistance	GΩ	>1
Capacitance	pF	1,200
Grounding		Signal ground connected to case
<b>ENVIRONMENTAL CHARACTERISTICS</b>		
Temperature Range		-40°F to 302°F (-40°C to +150°C)
Humidity		Epoxy sealed
Shock Limit	g pk	800
Base Strain	equiv. g pk/μ strain	0.0002
Magnetic Field Sensitivity	equiv. g rms/gauss (°T)	2E-5 (2)
Thermal Transient Sensitivity	equiv. g pk/°F (°C)	0.0072 (0.004)
<b>PHYSICAL CHARACTERISTICS</b>		
Weight	oz (grams)	1.0 (28)
Case Material		Stainless Steel
Mounting		M5, torque 2 N-m (18 lbf-in)
Piezoelectric Material		PZT-5
Structure		Annular Shear
Output Connector		M5 receptacle, top mounting

**ACCESSORIES****Included:**

9002-120 Low Noise, Coaxial M5/10-32, 10ft (3.3 m)  
9504-1 M5/10-32 Mounting Stud  
Calibration Certificate

**Optional:**

9001-120 Low Noise, Coaxial M5/M5, 10 ft (3.3 m)  
9504-4 M5/M5 Mounting Stud  
9505-1 M5/10-32 Isolated Mounting Stud

**NOTES**

1. Low end response of the transducer is a function of its electronics.