



MODELS 356A06 & 356A09

MINIATURE TRIAxIAL ICP® ACCELEROMETERS



FOR WHEN MINIMAL MASS LOADING AND SIZE MATTERS

- Small 0.25 (6.4 mm) adhesive mount cube
- Mini 8-36 4-pin jack offering improved serviceability in the case of cable damage
- High overload limit of 10000 g / 5000 g
- 10 ft (3 m) mating cable assembly with triaxial BNC plug termination included (except /NC model)

TYPICAL APPLICATIONS

Ideal for measuring vibration in:

- Powertrain NVH
- Component/system testing
- Structure response testing where sensors must fit within devices

Models 356A06 and 356A09 provide a 5 mV/g and 10 mV/g sensitivity with 1000 g and a 500 g triaxial measurement range (respectively). Both models provide a wide frequency range making them ideal for general vibration testing. They include a lower noise floor and higher shock limit than competitive offerings with a hermetically sealed titanium housing. The mini 8-36 4-pin jack allows for simple cable replacement and sensor mounting, and makes these the smallest ICP® triaxial accelerometers with a connector. With a weight of 1 gm (0.04 oz), these sensors are excellent for vibration testing small electronic devices with minimal mass loading and potential for overload shock.

Both models require an ICP® compatible signal conditioner or data acquisition system with 2 to 20 mA of constant current, available globally.

SPECIFICATIONS				
Model Number	356A06 & 356A06/NC		356A09 & 356A09/NC	
	English	SI	English	SI
Performance				
Sensitivity ($\pm 20\%$)	5 mV/g	0.51 mV/(m/s ²)	10 mV/g	1.02 mV/(m/s ²)
Measurement Range	± 1000 g pk	± 9810 m/s ² pk	± 500 g pk	± 4905 m/s ² pk
Frequency Range ($\pm 5\%$)	2 to 8000 Hz (y or z axis) 2 to 5000 Hz (x axis)			
Frequency Range (+1 dB)(x axis)	≥ 8 kHz			
Resonant Frequency	≥ 50 kHz			
Broadband Resolution (1 to 10000 Hz)	0.003 g rms	0.03 m/s ² rms		
Non-Linearity	$\leq 1\%$			
Transverse Sensitivity	$\leq 5\%$			
Environmental				
Overload Limit (Shock)	± 10000 g pk	± 98100 m/s ² pk	± 5000 g pk	± 49050 m/s ² pk
Temperature Range (Operating)	-65 to +250 °F		-54 to +121 °C	
Electrical				
Excitation Voltage	18 to 30 VDC		22 to 30 VDC	
Constant Current Excitation	2 to 20 mA			
Output Impedance	≤ 200 Ohm			
Output Bias Voltage	7 to 12 VDC		9 to 16 VDC	
Discharge Time Constant	0.24 to 1.0 seconds			
Settling Time (within 10% of bias)	< 3 sec			
Spectral Noise (1 Hz)		1200 $\mu\text{g}/\sqrt{\text{Hz}}$	11772 $(\mu\text{m}/\text{sec}^2)/\sqrt{\text{Hz}}$	
Spectral Noise (10 Hz)		300 $\mu\text{g}/\sqrt{\text{Hz}}$	2943 $(\mu\text{m}/\text{sec}^2)/\sqrt{\text{Hz}}$	
Spectral Noise (100 Hz)		100 $\mu\text{g}/\sqrt{\text{Hz}}$	981 $(\mu\text{m}/\text{sec}^2)/\sqrt{\text{Hz}}$	
Spectral Noise (1 kHz)		30 $\mu\text{g}/\sqrt{\text{Hz}}$	294 $(\mu\text{m}/\text{sec}^2)/\sqrt{\text{Hz}}$	
Physical				
Element / Housing Materials	Shear Ceramic / Hermetic Titanium			
Size (Height x Length x Width)	0.25 x 0.25 x 0.25 in		6.35 x 6.35 x 6.35 mm	
Weight (without cable)	0.04 oz		1.0 gm	
Electrical Connector	8-36 4-Pin			
Electrical Connection Position	Side			
Mounting	Adhesive			
Accessories				
Model 080A109 Petro Wax Model 080A90 Quick Bonding Gel Calibration per ACS-1T, NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency Model 034K10 4-cond. Shielded cable, 10 ft (3 M), Mini 4-pin plug to (3) BNC plugs Not included with /NC models				

