



Miniature Triaxial ICP® Accelerometers with TEDS

Highlights

- Small size and lightweight
- TEDS IEEE 1451.4 enabled
- Wide frequency bandwidth
- High resonant frequency
- Hermetically sealed titanium housing
- Ground isolated option

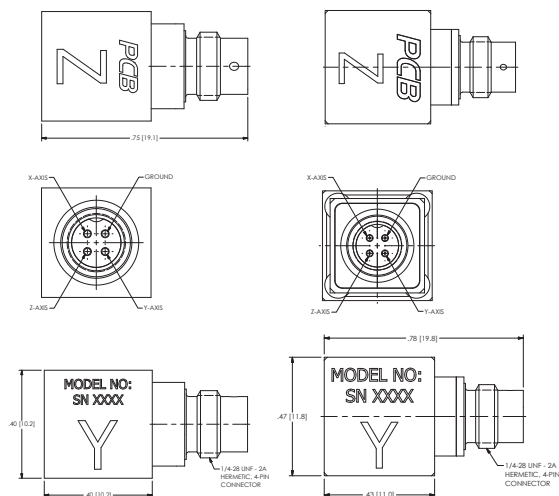
Applications

- Modal and structural analysis
- NVH studies on automotive parts
- Space restricted installations
- Drop testing and package testing
- Small component qualification testing
- General purpose vibration testing



Model 356A4X

Model J356A4X



Models 356A43, 356A44, 356A45, J356A43, J356A44 & J356A45

Models 356A43, 356A44 and 356A45 are miniature and lightweight triaxial ICP® accelerometers that are TEDS IEEE 1451.4 enabled. The accelerometers are hermetically sealed and packaged in a 0.4 inch (10.16 mm) titanium cube that weighs 0.15 ounces (4.2 grams). The TEDS feature self identifies these accelerometers and describes the type, operation, and their attributes making them extremely easy for the operator to track. J version models are ground isolated to reduce electrical noise and ground loops.



CE



CE

J option (ground isolated)

PCB PIEZOTRONICS INC.

MTS SYSTEMS CORPORATION

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Series 356A4X

Specifications	356A43 J356A43	356A44 J356A44	356A45 J356A45
Performance			
Sensitivity Tolerance (±10%)	10 mV/g [1.02 mV/(m/s²)]	50 mV/g [5.1 mV/(m/s²)]	100 mV/g [10.2 mV/(m/s²)]
Measurement Range	± 500 g pk [± 4905 m/s² pk]	± 100 g pk [± 981 m/s² pk]	± 50 g pk [± 490 m/s² pk]
Frequency Range (±5%)	0.7 – 7,000 Hz		
Frequency Range (±10%)	0.4 – 10,000 Hz		
Resonant Frequency	≥ 30 kHz		
Broadband Resolution	0.0008 g rms [0.008 m/s² rms]	0.0006 g rms [0.006 m/s² rms]	0.0005 g rms [0.005 m/s² rms]
Non-linearity	≤ 1 %		
Transverse Sensitivity	≤ 6 %		
TEDS Compliant (IEEE 1451.4)	Yes		
Environmental			
Overload Limit (Shock)	± 5000 g pk [± 49,050 m/s² pk]		
Temperature Range (Operating)	-65 to +250 °F (-54 to +121 °C)	-65 to +200 °F (-54 to +93 °C)	-65 to +185 °F (-54 to +85 °C)
Electrical			
Excitation Voltage	20 – 30 VDC		
Constant Current Excitation	2 – 20 mA		
Electrical Isolation	1 x 10 ⁹ ohm (J option only)		
Physical			
Housing Material	Titanium		
Sealing	Hermetic		
Weight	0.15 oz [4.2 g]		
Electrical Connector	1/4 – 28 4-pin (side)		
	356A43, 356A44, 356A45		J356A43, J356A44, J356A45
Size (height x width x length)	0.4 x 0.4 x 0.75 in. (10.2 x 10.2 x 19.1 mm)		0.47 x 0.43 x 0.78 in. (11.8 x 11.0 x 19.8 mm)

4-conductor cables

Please visit pcb.com or contact a PCB® application engineer for a complete specification

The table below provides the most relevant specifications for the five cable types commonly used with ICP® triaxial sensors.



Cable Series	010	034	019	036	078
Cable Style	General Purpose	General Purpose Low Noise	Flexible Lightweight	Flexible	Rugged Flexible
Jacket Material	FEP	FEP	Silicone	Silicone	Polyurethane
Cable Jacket Diameter	0.1 in 2.54 mm	0.077 in 1.96 mm	0.070 in 1.77 mm	0.104 in 2.64 mm	0.119 in 3.02 mm
Temperature Range	-130 to +392 °F -90 to +200 °C	-130 to +392 °F -90 to +200 °C	-76 to +500 °F -60 to +260 °C	-76 to +392 °F -60 to +200 °C	-58 to +185 °F -50 to +85 °C
Pull Strength	34 lb	19 lb	10 lb	30 lb	25 lb
10-foot cable assembly model number**	010G10	034G10	019AY010JW	036G10	078G10

**The model numbers provided are for BNC plug terminated 10-foot cable assemblies compatible with the 356A4X series.

**Visit www.pcb.com/shopsensors to find, compare and shop additional cable assembly lengths and connector combinations.



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AS9100 CERTIFIED ■ ISO 9001 CERTIFIED ■ A2LA ACCREDITED to ISO 17025

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PCB PIEZOTRONICS, INC. is a designer, manufacturer, and global supplier of accelerometers, microphones, force, torque, load, strain, and pressure sensors, as well as the pioneer of ICP® technology. This instrumentation is used for test, measurement, monitoring, and control requirements in automotive, aerospace, industrial, R&D, military, educational, commercial, OEM applications, and more. Our Platinum Stock Sensors program ensures fast shipment of over 10,000 sensors that are covered by a Lifetime Warranty. With a support team of Customer Service Representatives and Application Engineers, PCB® proudly stands behind their products with the services you value most, including 24-hour technical support, a global distribution network, and the industry's only commitment to **Total Customer Satisfaction**. Visit us at www.pcb.com.

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