



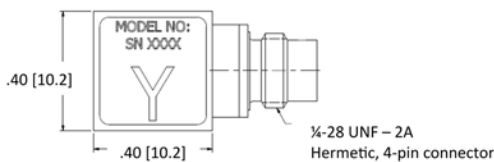
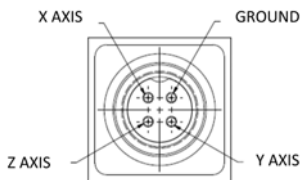
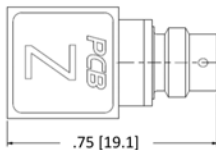
# Miniature Triaxial ICP® Accelerometers with TEDS

## Highlights

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

## 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



## Models 356A43, 356A44 & 356A45

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.





## Specifications

	356A43	356A44	356A45
<b>Performance</b>			
Sensitivity Tolerance ( $\pm 10\%$ )	10 mV/g [1.02 mV/(m/s <sup>2</sup> )]	50 mV/g [5.1 mV/(m/s <sup>2</sup> )]	100 mV/g [10.2 mV/(m/s <sup>2</sup> )]
Measurement Range	$\pm 500$ g pk [ $\pm 4905$ m/s <sup>2</sup> pk]	$\pm 100$ g pk [ $\pm 981$ m/s <sup>2</sup> pk]	$\pm 50$ g pk [ $\pm 490$ m/s <sup>2</sup> pk]
Frequency Range ( $\pm 5\%$ )	0.7 – 7,000 Hz		
Frequency Range ( $\pm 10\%$ )	0.4 – 10,000 Hz		
Resonant Frequency	$\geq 30$ kHz		
Broadband Resolution	0.0008 g rms [0.008 m/s <sup>2</sup> rms]	0.0006 g rms [0.006 m/s <sup>2</sup> rms]	0.0005 g rms [0.005 m/s <sup>2</sup> rms]
Non-linearity	$\leq 1\%$		
Transverse Sensitivity	$\leq 6\%$		
TEDS Compliant (IEEE 1451.4)	Yes		
<b>Environmental</b>			
Overload Limit (Shock)	$\pm 5000$ g pk [ $\pm 49,050$ m/s <sup>2</sup> 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)
<b>Electrical</b>			
Excitation Voltage	20 – 30 VDC		
Constant Current Excitation	2 – 20 mA		
<b>Physical</b>			
Housing Material	Titanium		
Sealing	Hermetic		
Size (height x width x length)	0.4 x 0.4 x 0.75 in. (10.2 x 10.2 x 19.1 mm)		
Weight	0.15 oz [4.2 g]		
Electrical Connector	1/4 – 28 4-pin		
Electrical Connector Position	Side		
Mounting	Adhesive (no tapped hole)		

## 4-conductor cables

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 356A43, A44 and A45 sensors.

\*\*Visit [www.pcb.com/shopsensors](http://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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