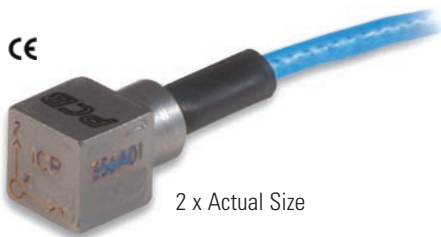


Lightweight, Triaxial Accelerometer

For Vibration Analysis of Small Components

- 1.0 gram (0.04 oz) weight (without cable)
- 0.25 inch (6.35 mm) cube housing
- Lightweight housing minimizes mass-loading effects
- Hermetically sealed, titanium housing for long term durability and to prevent contamination in harsh environments
- Integral 5 ft (1.5 m) cable with supplied interconnect cable terminating with three BNC plugs
- Adhesive mounting

Model 356A01 is an ICP® triaxial accelerometer utilizing a ceramic sensing element which provides clean, low-impedance voltage output signals capable of being transmitted over long cable lengths. The sensor's shear mode design minimizes both transverse and base strain sensitivity and is well-suited for the following applications:



Model 356A01
Miniature, Lightweight,
Triaxial ICP® Accelerometer

- High amplitude and high frequency measurements, such as drop testing of circuit boards, disk drives, and cell phones
- NVH studies on automotive parts, brackets, etc.
- Analysis of small structures, satellite components, and scaled models
- Thin-walled flexible structures
- Biomedical research

An optional high temperature version can be used in harsh environments such as engine dynamometer and engine compartment testing.

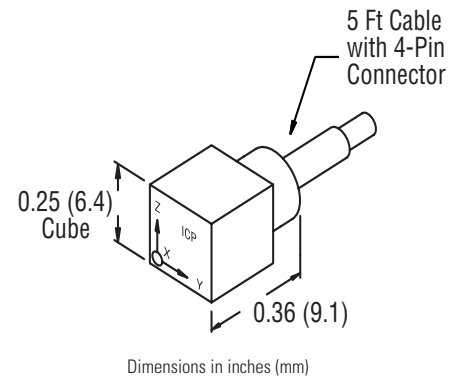
As with all instrumentation from PCB®, these sensors are complemented with toll-free applications assistance, 24-hour customer service, and are backed by a **Total Customer Satisfaction** guarantee.

MODEL 356A01 MINIATURE TRIAXIAL ICP® ACCELEROMETER



Specifications

Model	356A01	
Performance	English	SI
Sensitivity ($\pm 20\%$)	5 mV/g	0.51 mV/(m/s ²)
Measurement Range	± 1000 g pk	± 9810 m/s ² pk
Frequency Range ($\pm 5\%$)(Y & Z - axis)	2 to 8000 Hz	2 to 8000 Hz
Frequency Range ($\pm 5\%$)(X - axis)	2 to 7000 Hz	2 to 7000 Hz
Resonant Frequency	≥ 50 kHz	≥ 50 kHz
Broadband Resolution (1 to 10,000 Hz)	0.003 g rms	0.03 m/s ² rms [1]
Non-Linearity	$\leq 1\%$	$\leq 1\%$ [3]
Transverse Sensitivity	$\leq 5\%$	$\leq 5\%$
Environmental		
Overload Limit (Shock)	$\pm 10,000$ g pk	$\pm 98,100$ m/s ² pk
Temperature Range (Operating)	-65 to +250 °F	-54 to +121 °C [2]
Electrical		
Excitation Voltage	18 to 30 VDC	18 to 30 VDC
Constant Current Excitation	2 to 20 mA	2 to 20 mA
Output Impedance	≤ 200 ohms	≤ 200 ohms
Output Bias Voltage	7 to 11 VDC	7 to 11 VDC
Discharge Time Constant	0.3 to 1.0 sec	0.3 to 1.0 sec
Settling Time (within 10% of bias)	<3 sec	<3 sec
Spectral Noise (1 Hz)	1200 $\mu\text{g}/\sqrt{\text{Hz}}$	11,772 ($\mu\text{m/s}^2$)/ $\sqrt{\text{Hz}}$ [1]
(10 Hz)	300 $\mu\text{g}/\sqrt{\text{Hz}}$	2943 ($\mu\text{m/s}^2$)/ $\sqrt{\text{Hz}}$ [1]
(100 Hz)	100 $\mu\text{g}/\sqrt{\text{Hz}}$	981 ($\mu\text{m/s}^2$)/ $\sqrt{\text{Hz}}$ [1]
(1 kHz)	30 $\mu\text{g}/\sqrt{\text{Hz}}$	294 ($\mu\text{m/s}^2$)/ $\sqrt{\text{Hz}}$ [1]
Physical		
Sensing Element	Ceramic	Ceramic
Sensing Geometry	Shear	Shear
Housing Material	Titanium	Titanium
Sealing	Hermetic	Hermetic
Size (Height x Length x Width)	0.25 in x 0.25 in x 0.25 in	6.35 mm x 6.35 mm x 6.35 mm
Weight (without cable)	0.04 oz	1.0 gm [1]
Electrical Connector	Integral Cable	Integral Cable
Electrical Connection Position	Side	Side
Cable Termination	1/4-28 4-Pin Jack	1/4-28 4-Pin Jack
Cable Length	5 ft	5 ft
Cable Type	034 4-cond Shielded	034 4-cond Shielded
Mounting	Adhesive	Adhesive



Supplied Accessories:

- Model 034G05 4-cond. shielded cable, 5 ft (1.5M), 4-pin plug to (3) BNC plugs (1)
- Model 080A109 Petro Wax (1)
- Model 080A90 Quick Bonding Gel (1)
- Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency (1)

Optional Versions:

- HT - High temperature, extends normal operation temperatures [-65 °F to +325 °F (-54 °C to +163 °C)]

Notes:

- [1] Typical
- [2] 250 °F to 325 °F data valid with HT option only
- [3] Zero-based, least-squares, straight line method



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ISO 9001 CERTIFIED

A2LA ACCREDITED to ISO 17025

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VIB-356A01-0703

Printed in U.S.A.

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