



# ICP<sup>®</sup> Accelerometers with Excellent Thermal Stability

## For Powertrain Testing

### Highlights

- Temperature coefficient as low as 0.005% / °F (0.009% / °C)
- 10 mV/g and 50 mV/g sensitivity
- Measurement frequency to 10 kHz at ± 5%
- Operating temperature from -100 to +325 °F (-73 to +163 °C)
- Titanium housed and hermetically sealed
- Available in stud, adhesive and through hole mounting configurations
- Models TLD339A34 and TLD339A36 feature TEDS

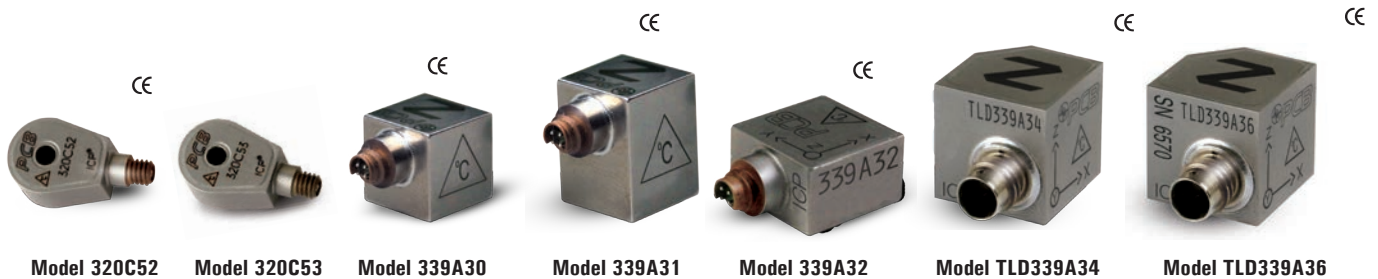
### Applications

- Powertrain Development
- Powertrain NVH
- Vehicle Systems NVH
  - Underhood
  - Exhaust
  - Brake
- Component and System Performance
  - Vehicle Road Load & Durability
  - Climatic Chamber Testing



PCB<sup>®</sup> single and triaxial ICP<sup>®</sup> accelerometers are designed with a low temperature coefficient, wide operating temperature range, and good broadband measurement resolution, making them ideal for powertrain development and powertrain NVH applications, or for any vibration measurement requiring tight control of amplitude sensitivity over a wide thermal gradient. With a temperature coefficient as low as 0.005% / °F (0.009% / °C), these titanium housed and hermetically sealed units have a 10 mV/g or 50 mV/g sensitivity, a measurement frequency to 10 kHz, and an operating temperature range from -100 to +325 °F (-73 to +163 °C). To alleviate the effects of high frequency overloads caused by metal-to-metal inputs, a low pass filter has been incorporated in all models, ensuring accurate data in the frequency range of interest. These sensors provide precision amplitude data for test applications with large thermal shifts such as powertrain vibration testing, powertrain NVH, certain vehicle systems NVH tests, road load data acquisition, and durability testing in climatic chambers. Sensors are available in stud, adhesive and through hole mounting configurations.

As with all PCB<sup>®</sup> instrumentation, these sensors are complemented with toll-free applications assistance, 24-hour technical support, and are backed by a no-risk policy that guarantees total customer satisfaction or your money refunded.



Automotive Sensors Division



www.pcb.com

Vertrieb für Österreich:

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Technical Specifications

Table with 8 columns: Model Number, 320C52, 320C53, 339A30, 339A31, 339A32, TLD339A34 [1], TLD339A36 [1]. Rows include Measurement Range, Sensitivity, Broadband Resolution, Frequency Range, Resonant Frequency, Non-Linearity, and Transverse Sensitivity.

Environmental

Table with 8 columns: Model Number, 320C52, 320C53, 339A30, 339A31, 339A32, TLD339A34 [1], TLD339A36 [1]. Rows include Overload Limit (Shock), Temperature Range, and Temperature Coefficient of Sensitivity.

Electrical

Table with 8 columns: Model Number, 320C52, 320C53, 339A30, 339A31, 339A32, TLD339A34 [1], TLD339A36 [1]. Rows include Excitation Voltage, Constant Current Excitation, Spectral Noise (10 Hz), Spectral Noise (100 Hz), and Spectral Noise (1000 Hz).

Physical

Table with 8 columns: Model Number, 320C52, 320C53, 339A30, 339A31, 339A32, TLD339A34 [1], TLD339A36 [1]. Rows include Housing Material, Sealing, Size (H x L x W), Weight, Electrical Connector, and Mounting.

Supplied Accessories

Table with 8 columns: Model Number, 320C52, 320C53, 339A30, 339A31, 339A32, TLD339A34 [1], TLD339A36 [1]. Rows include Adhesive Mounting Base, Mounting Studs, Allen Wrench, Insulated Cap Screw, Wax/Adhesive, and Cables.

Notes

[1] TEDS Capable of Digital Memory and Communication compliant with IEEE1451.4

Recommended Signal Conditioners



482C16 Series:

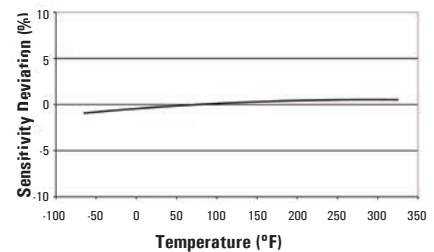
4-channel, line-powered, ICP®/ voltage sensor signal conditioner, incremental gain x0.1 to x200, RS-232



482C05 Series:

4-channel, line-powered, ICP®/ voltage sensor signal conditioner, unity gain, BNC input/output connection

Typical Sensitivity Deviation vs. Temperature



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

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PCB® Automotive Sensors is a dedicated technical sales and support facility, located in Farmington Hills, Michigan, USA, devoted to the testing needs of the global transportation market. This team is focused on development and application of sensors and related instrumentation for specific vehicle development test programs, including modal analysis; driveability; ride & handling; component & system performance; durability; road load data acquisition; vehicle and powertrain NVH; legislative testing; quality control; powertrain development; and motorsport.

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