

What's New at PCB®

Sensors & Instrumentation for Measuring Vibration, Acoustics, Shock, Pressure, Force, Strain, and Machinery Protection



 **PCB** PIEZOTRONICS^{INC.}

 **IMI SENSORS**
A PCB PIEZOTRONICS DIV.

 **LARSON DAVIS**
A PCB PIEZOTRONICS DIV.

Vibration, Shock and Acceleration Sensors

DC Response Accelerometers

Series 3741

- Differential sensing technology
- Built-in amplifier
- Variety of full scale ranges from 2 to 200 g
- Frequency range from 0 to 2000 Hz
- Ground isolated, anodized aluminum housing
- Integral cable



DC Response Accelerometers

Series 3711

- Single ended sensing technology
- Built-in amplifier
- Variety of full scale ranges from 3 to 200 g
- Ground isolated titanium housing
- 4-pin connector or integral cable



Triaxial DC Response Accelerometers

Series 3713

- Single ended sensing technology
- Built-in amplifier
- Variety of full scale ranges from 3 to 200 g
- Ground isolated titanium housing
- 9-pin connector or integral cable



High Temperature Accelerometers

Series 357C7X

- +900 °F temperature range
- 10, 50, or 100 pC/g sensitivities
- 1000, 500, or 300 g ranges



Miniature, Charge Output Accelerometer

Model 357A19

- 0.35 pC/g sensitivity
- 1000 g amplitude range
- 20 kHz frequency range
- +350 °F temperature range
- Rugged titanium housing



Miniature ICP® Accelerometer

Model 352A72

- 10 mV/g sensitivity
- 500 g amplitude range
- 0.5 to 4500 Hz frequency range
- Built-in 15 kHz low pass filter
- Flexible wires for easy routing around test specimen



Miniature, Triaxial ICP® Accelerometer

Model 356A13

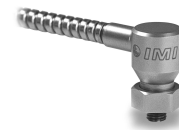
- 5 mV/g sensitivity
- 1000 g amplitude range
- 2 to 8000 Hz frequency range
- Flexible wires for easy routing around test specimen



Spindler® Accelerometer with Armored Cable

Model 607A61

- Ideal for high speed spindle monitoring
- Low pass filter to prevent high frequency saturation
- Cable may be positioned in any direction
- Armored cable prevents damage from metal chips



Torque Sensors

CE Marked TORKDISC®

Series 5300C

- Inline non-contact rotary torque sensor system
- Complies with European Union EMC Directive
- Compact & lightweight
- Capacities from 1000 to 225k in-lb (113 to 25.4k N-m)
- Combined accuracy to 0.1% FSO



Signal Conditioners

ICP®, Charge Output, and Voltage Sensor Signal Conditioner

Model 482C64

- 4 channels
- Supports ICP®, charge output, and TEDS sensors
- Incremental gain
- Ethernet and RS-232 Control



ICP®, Charge Output, and Voltage Sensor Signal Conditioner

Model 482M179

- 8 channels
- Supports ICP®, charge output, and TEDS sensors
- Incremental gain
- Ethernet Control

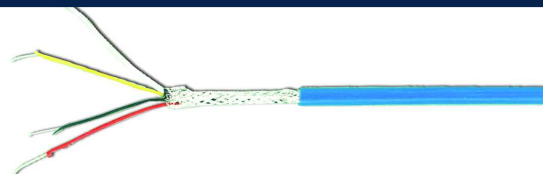


Cable

4-conductor Shielded Cable

Model 078

- Silicone Jacket
- Flexible to reduce cable strain
- Ideal for use with triaxial accelerometers



Pressure Sensors

Rugged, Strain Gage Pressure Transmitter

Model 1503M

- Monolithic port/diaphragm design for durability
- Stainless steel or Inconel versions
- Compatible with H₂S and sour gas media
- ATEX and CSA approvals for intrinsic safety
- 4-20 mA output signal



Diesel Combustion Pressure Sensor

Model 175A01

- 4000 psi amplitude range
- +600 °F temperature range
- Installs through Kiene port



Intrinsically Safe, Industrial Dynamic ICP® Pressure Sensors

Models 121A44, 102A44

- Detect & monitor pulsations, instability, surges, turbulence, and acoustics
- Hazardous location trouble shooting, predictive maintenance, & process improvement
- All-welded, Hermetically Sealed, Stainless Steel Construction
- Built-in, Microelectronic ICP® Amplifier
- Available with 2-pin MIL or 10-32 Connector
- CSA and ATEX approvals



Microphones and Preamplifiers

Low-profile ICP® Surface Microphone

Model 130A40

- Aerodynamic design, only 0.27 inch height
- 1/4 inch diaphragm
- Pressure response, 45 mV/Pa sensitivity
- Ideal for turbulence and surface acoustic studies
- Operates with ICP® sensor signal conditioners



High Amplitude, Precision Prepolarized Microphone

Model 377A12

- 1/4 inch diaphragm
- Pressure response, 0.25 mV/Pa sensitivity
- 178 dB amplitude range
- Operates with low-cost, ICP® microphone preamplifiers



ICP® Array Microphone with SMB Connector

Model 130D22

- 1/4 inch diaphragm
- Free field response, 45 mV/Pa sensitivity
- 122 dB amplitude range
- Long length minimizes reflections
- Operates with ICP® sensor signal conditioners



ICP® Microphone Preamplifier

Model 426A11

- For use with 1/2 inch, prepolarized precision microphones
- Built-in A-weight and High-pass filters 20 dB gain
- Low noise operation
- Operates with ICP® sensor signal conditioners



Precision Prepolarized Microphone

Model 377A13

- 1/2 inch diaphragm
- Pressure response, 10 mV/Pa sensitivity
- Frequency response 4 Hz - 20 kHz (± 2 dB)
- Operates with low-cost, ICP® microphone preamplifiers



High Intensity Acoustic Microphone

Model 106M160

- For measuring airbag deployment noise
- Filtered output tailored to the human ear
- Measures total impulse of airbag noise



Celebrating 40 Years of Total Customer Satisfaction



In 2007, PCB Piezotronics celebrates 40 years as a global leader in the design and manufacture of force, torque, load, strain, pressure, acoustic and vibration sensors, as well as the pioneer of **ICP® technology**. Our core competencies include ICP® and charge output piezoelectric, piezoresistive, strain gage, MEMS and capacitive sensors and instrumentation. With 24-hour customer support; direct sales offices throughout Europe and Asia; and an established global distribution network, PCB® attributes its continued growth to an unwavering commitment to total customer satisfaction. **Visit www.pcb.com for more information about our products and applications.**

What's New at PCB®

Dynamic Force and Strain

Dynamic ICP® Strain Sensor

Model JM240A01

- Monitors stamping and crimping forces indirectly
- Non intrusive to the manufacturing process
- Monitors pass/fail part quality
- Electrically ground isolated



Mold Ejector Pin Force Sensor

Model 219A05

- Charge output
- 20 pC/lb sensitivity
- +400 °F temperature range
- Monitors ejection force to ensure final part quality



ICP® Sensor Signal Conditioner

Model 410A01

- Provides excitation power for ICP® sensors
- Offers peak hold output and analog output signals
- Ideal for machinery automation and control applications



Three Component Force Sensor

Series 261

- Measures dynamic and quasi-static forces in 3-orthogonal directions
- Force limited vibration testing
- Impact testing
- Biomechanics research
- Force plates



PCB® Launches New Automotive Sensors Division

PCB Piezotronics is pleased to announce the formation of the PCB Automotive Sensors Division, a dedicated sales and technical support facility, located in Novi, Michigan, devoted exclusively to the global automotive test market including vehicle NVH and Dynamics, vehicle and component performance and durability, legislative and safety, crash, quality control, and powertrain testing applications. Throughout its 40-year history, PCB has been committed to Total Customer Satisfaction, which has historically included the tailoring of sales, applications engineering and customer service support to specific customer needs. The establishment of the PCB Automotive Sensors Division will achieve that goal within a very important market sector, while helping the organization grow and evolve, in synch with the growing and evolving needs of a valued customer base.



AUTOMOTIVE SENSORS A PCB PIEZOTRONICS DIV.

PCB® Teams with Andretti Green Racing in 2007

PCB Piezotronics is proud to be Official Sensor and Instrumentation Sponsor of Andretti Green Racing this season. PCB is supplying DC response accelerometers, torque sensors and load cells, for the team's four IndyCar Series entries. AGR, which won this year's Indianapolis 500 and Milwaukee Mile, the 2004 and 2005 IndyCar Series championships and 2005 Indianapolis 500, among other races. The team utilizes PCB sensors and instrumentation to help make precision measurements and improve racing performance. In addition to AGR's new ALMS effort in 2007, the team fields four full-time entries in the IndyCar Series, fielded a fifth in the Indianapolis 500, as well as a single-car team in the Indy Pro Series.



Visit www.pcb.com
to locate your nearest sales office

ISO 9001:2000 Certified

AS9100:2004 Certified

A2LA Accredited to ISO 17025

PCB Piezotronics, Inc. manufactures accelerometers, force sensors, load cells, microphones, pressure transducers and transmitters, strain sensors, torque sensors, signal conditioners, cables, and accessories. This instrumentation is used for test, measurement, monitoring, and feedback control requirements in automotive, aerospace, industrial, R&D, military, educational, commercial, and OEM applications. PCB Piezotronics offers exceptional customer service, 24-hour technical assistance, and a **Total Customer Satisfaction** guarantee.

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