SENSORS FOR UNDERWATER VIBRATION AND PRESSURE MEASUREMENT

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SENSORS FOR RESEARCH & DEVELOPMENT | AEROSPACE & DEFENSE |
Piezoelectric pressure sensors are suited for dynamic pressure measurements including turbulence and cavitation. These measurements require a fast response or rise time, ruggedness, and high stiffness in order to obtain a high frequency response.

- Strict quality control inspection and standards
- Smaller footprint allows for mounting on models, or within limited size testing environments

**High Resolution ICP® Pressure Probe**
Model S112A22
- 100 mV/psi, 50 psi
- Stainless steel

**High Frequency CVLD Pressure Sensor**
Model 113M231
- 50 psi, 100 uA/psi
- Emralon coated
- Integral waterproof cable
- Acceleration compensated
- Ground isolated
VIBRATION
Shear mode accelerometers isolate the sensing crystals from the base and housing, lowering thermal transients and signal noise resulting from base bending effects. This is a very important feature when attaching them to relatively thin walled vessel hull models during wave slap applications.

ICP® Underwater Accelerometer
Model 352M221
- 10 mV/g, ±500 g
- 2nd order LP filter
- Frequency response from 1 Hz to 10 kHz
- Integral waterproof cable

ICP® Quartz Force Rings
Series 200M
- ±100 or 2500 lbs. (0.4 or 11 kN)
- Measures dynamic excitation or reaction forces
- Integral waterproof cable

Miniature Ring-style, Ceramic Shear ICP® Accelerometer
Model 355M73
- 100 mV/g, ±50 g range
- Frequency response 7 Hz to 10 kHz
- Integral waterproof cable
- Case isolated

Teardrop ICP® Accelerometer With Flexible, Integral Cable
Model 352A74
- 100 mV/g, ±50 g range
- Frequency response 1 Hz to 8 kHz
- Hermetic housing

Precision Quartz Industrial ICP® Accelerometer
Model 624B11
- 100 mV/g, ±50 g range
- Frequency response 0.8 Hz to 10 kHz
- Integral waterproof cable
- Case isolated

The Swivel® Low Cost Industrial ICP® Accelerometer
Model 607A11
- 100 mV/g, ±50 g range
- Frequency response from 0.5 Hz to 10 kHz
- Integral waterproof cable
- Patented 360º cable orientation
- Case isolated
UNDERWATER BLAST

Piezoelectric pressure sensors measure shock waves and bubble energy associated with underwater explosion testing. Sensors structured with volumetrically sensitive, omnidirectional tourmaline crystal and ICP® microelectronics provide a high frequency, low impedance output in underwater test environments. Waterproof cables of customer requested lengths are factory installed.

Tourmaline ICP® Underwater Blast Sensor
Series 138A
- ICP® underwater blast pressure probes
- Ranges from 1000 to 50 kpsi (6894 to 344,740 kPa)
- Rise time 1.5 µ sec
- Resonant frequency ≥ 1 MHz

PCB PIEZOTRONICS 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 same day 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 for more information.