SensorsX

SX-PFXADC02 Series

Piezoelectric Blast & Impact Sensor

Piezoelectric Film Sensor for Blast and Impact Force Monitoring

φ7 mm (0.276 in) Overall Sensor Diameter	**75 μm ±5% (2.95 mil)** Sensor Thickness	**0.09 nF ±5%** Capacitance
18–32 pC/N Piezoelectric Constant (d33)	**0.01 Hz – 100 MHz** Frequency Bandwidth	**−30 to 60 °C (−22 to 140 °F)** Storage / Operating Temperature

Dynamic Pressure Detection | Vibration Monitoring | Blast / Explosion Impact Monitoring

■ PRODUCT OVERVIEW

The SX-PFXADC02 is a piezoelectric film sensor designed to monitor blast and impact forces. The sensor consists of a piezoelectric film and a protective layer, with the sensor signal output through pin leads. With appropriate downstream signal conditioning and calibration, the sensor output can be used to determine the applied impact force.

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■ KEY FEATURES

◆ Wide frequency response	◆ High flexibility
◆ Wide dynamic range	◆ High voltage output
◆ Low acoustic impedance and high stability	◆ High sensitivity and high dielectric strength

■ TYPICAL APPLICATIONS

- Dynamic pressure detection
- Vibration monitoring
- Blast / explosion impact monitoring

■ PERFORMANCE SPECIFICATIONS

Sensor Characteristics	
Sensor Thickness	75 μm ±5% (2.95 mil ±5%)
Overall Sensor Diameter	φ7 mm (φ0.276 in)
Frequency Bandwidth	0.01 Hz – 100 MHz
Flex / Bend Cycle Rating	>1,000,000 cycles

■ ELECTRICAL SPECIFICATIONS

Piezoelectric Constant (d33)	18–32 pC/N
Capacitance	0.09 nF ±5%
Connection Type	PIN-type leads

■ ENVIRONMENTAL SPECIFICATIONS

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Storage / Operating Temperature	−30 to 60 °C (−22 to 140 °F)

■ MECHANICAL DIMENSIONS

Overall Sensor Diameter	φ7 mm (φ0.276 in)
Sensor Thickness	75 μm ±5% (2.95 mil ±5%)

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