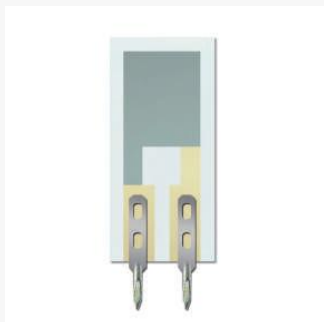


SensorsX

SX-PFXAAS01 Series

Flexible Piezoelectric Film Pressure Sensor — Dynamic Strain & Vibration Sensor

[Dynamic Measurement](#) | [Vibration](#) | [Physical Impact](#) | [Pulse](#) | [Heart Rate](#)

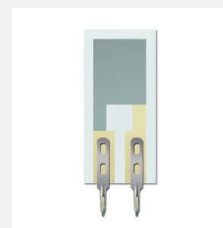


18-30 pC/N Piezoelectric Constant d33	10-14 µm Film Thickness	0.4-0.8 nF Capacitance
> 1,000,000 Flex Cycles	10 x 8 mm Sensing Area	5.08 mm Pin Pitch

[Dynamic Measurement](#) | [Vibration](#) | [Physical Impact](#) | [Pulse](#) | [Heart Rate](#)

■ PRODUCT OVERVIEW

The SX-PFXAAS01 thin-film piezoelectric sensor is a high-sensitivity dynamic strain sensor. When force is applied to the sensor surface or the sensor is bent, internal deformation occurs. This generates an electrical signal between the upper and lower electrode surfaces of the piezoelectric film. The signal can be amplified and filtered at the back end to obtain information for detecting vibration, physical impact, pulse, heart rate, and similar dynamic events.



■ KEY FEATURES

◆ Simple Structure Simple construction with minimal components	◆ Thin & Lightweight Thin profile with low mass for minimal interference
◆ High Sensitivity High-sensitivity dynamic strain and pressure detection	◆ Excellent Flexibility Good flexibility and bend resistance
◆ Chemical Resistance Resistant to chemical corrosion	

■ TYPICAL APPLICATIONS

Industries Served

• Vibration detection	• Physical impact detection	• Pulse monitoring
• Heart rate detection	• Dynamic strain sensing	• Wearable devices

■ PERFORMANCE SPECIFICATIONS

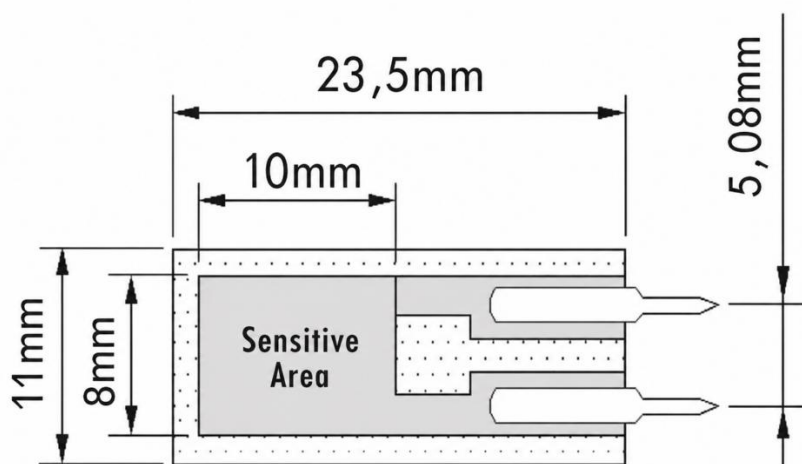
Sensor Characteristics

Film Thickness	10-14 µm
Piezoelectric Constant d33	18-30 pC/N
Capacitance	0.4-0.8 nF
Sensing Area	10 x 8 mm
Pin Pitch	5.08 mm (0.200 in)

Connection Type	Terminal
Environmental	
Operating Temperature	-20 to 100 °C (-4 to 212 °F)
Mechanical	
Flex Cycles	> 1,000,000
Frequency Band	< 100 MHz
Overall Dimensions	See dimension drawing below

MECHANICAL DIMENSIONS

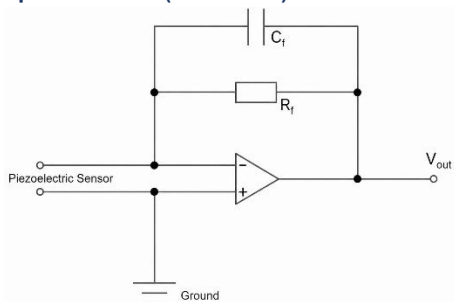
SX-PFXAAS01 (SPE-001) — Dimension Drawing



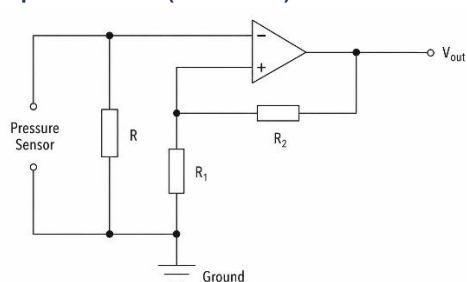
WIRING DIAGRAM

SX-PFXAAS01 — Reference Circuit Diagrams

Charge Amplifier Circuit (Reference)



Voltage Amplifier Circuit (Reference)



※ Reference circuit diagrams only. C_f and R_f values depend on application frequency range and gain requirements. Consult application notes for component selection.

※ Sensor shape and sensing area dimensions are customizable — contact SensorsX Technology Inc. for custom configurations.