



Part Number: SEN0209

Description: Gravity: Flexible Piezo Film Vibration Sensor

INTRODUCTION

This is an Arduino compatible piezo film vibration sensor. It is made up of flexible piezo film and converter board. The sensor is able to detect vibration, flexibility, impact and touch.

The film is a flexible component comprising a 28 μm thick piezoelectric PVDF polymer film with screen-printed Ag-ink electrodes, laminated to a 0.125 mm polyester substrate, and fitted with two crimped contacts. As the piezo film is displaced from the mechanical neutral axis and bending creates very high strain within the piezo polymer, high voltages (about $\pm 90\text{V}$) are generated. When the assembly is deflected by direct contact, the device acts as a flexible "switch", and the generated output is sufficient to trigger MOSFET or CMOS stages directly.

The module uses universal Gravity 3Pin interface that is easy to plug and play. It comes with Digital and Analog two output signals, which is suitable for all kinds of different applications. The piezo vibration sensor is not only able to detect strong shocks, but also to detect slight vibrations. There is an on-board sensitivity adjustment potentiometer, you can adjust it to increase/decrease the output threshold value.

Meanwhile, the piezo film sensor has a wide dynamic range (0.001Hz~1000MHz) also guarantees an excellent measuring performance.



SPECIFICATION

- Operating Voltage: 5V
- Interface Type: Gravity PH2.0 3Pin interface
- Operating Temperature: 0 ° C to 85 ° C
- Storage Temperature: -40 ° C to 85 ° C
- Dimension: 27mm * 22mm
- Weight: 10 g

SHIPPING LIST

- Piezoelectric Film x1
- Sensor Converter Board x1
- Gravity 3-pin Digital Cable x1