

Piezoelectric Ceramic Sensors (PIEZOTITE®)



Shock Sensor

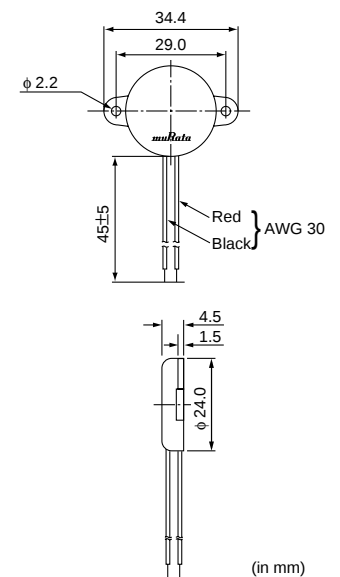
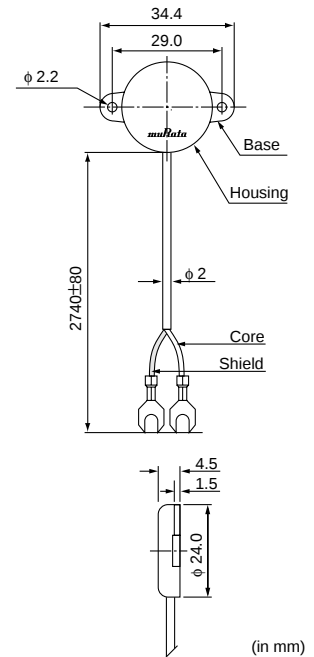
The piezoelectric element produces a voltage which is proportional to the acceleration of an impact or a vibration to which it is exposed. The shock sensor utilizes piezoelectric ceramics to convert the energy of impact into a proportional electrical signal. The piezoelectric shock sensor uses a "unimorph" diaphragm which consists of a piezoelectric ceramic disk laminated to a metal disk. The diaphragm is supported along its circumference in a housing. The sensor features compact, lightweight design, and is suitable for a wide range of applications requiring impact and vibration sensing.

■ Features

1. Compact, lightweight design.
2. High sensitivity assures it picks up even microlevel impact and vibration.
3. Rugged construction survive impact and vibration stresses.
4. Requires no bias voltage.

■ Applications

1. Car burglar sensors on doors.
2. Intruder sensors at windows or doors.
3. Burglar alarms for showcases and safes.
4. Vibration sensors for car audio equipment

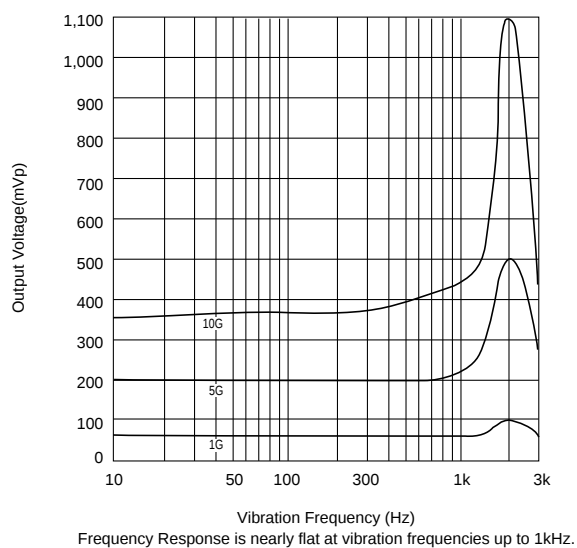


Part Number	Output Voltage	Capacitance	Insulation Resistance
PKS1-4A1	40mV0p /G TYP. 4.08mV0p/ (m/s ²) TYP. (at 25°C, 20MΩ Load, 10Hz - 1kHz)	10000pF±30%	30MΩmin. (at 100V D.C.)
PKS1-4A10		9000pF±30%	

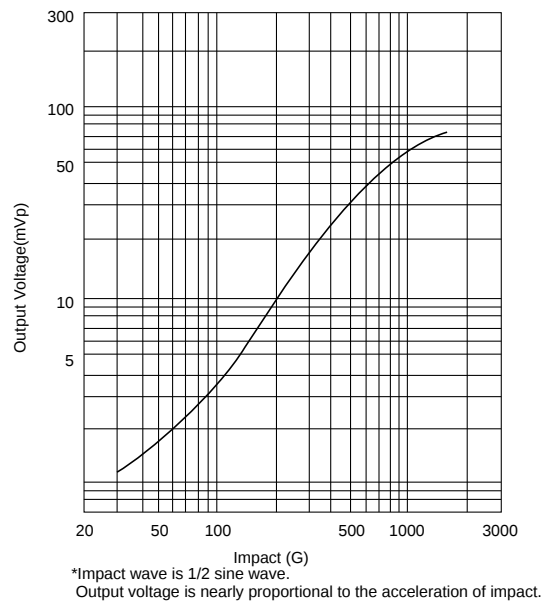
1G=9.8m/s²
Output Voltage is reference value.

■ Characteristics Data

● Frequency Response



● Output Voltage vs. Impact Response



■ Notice

1. The component should be fixed at the place where the main axis of sensor has same direction as the vibration axis.
2. Please avoid applying DC-bias by connecting DC blocking capacitor or some other way because, otherwise, the component may be damaged.