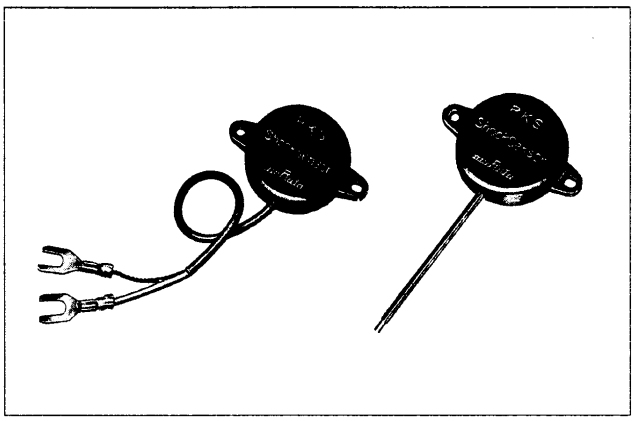
PIEZOTITE®

muRata

Shock Sensor 731-973.

The piezoelectric element produces a voltage which is proportinal 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.

■SPECIFICATIONS

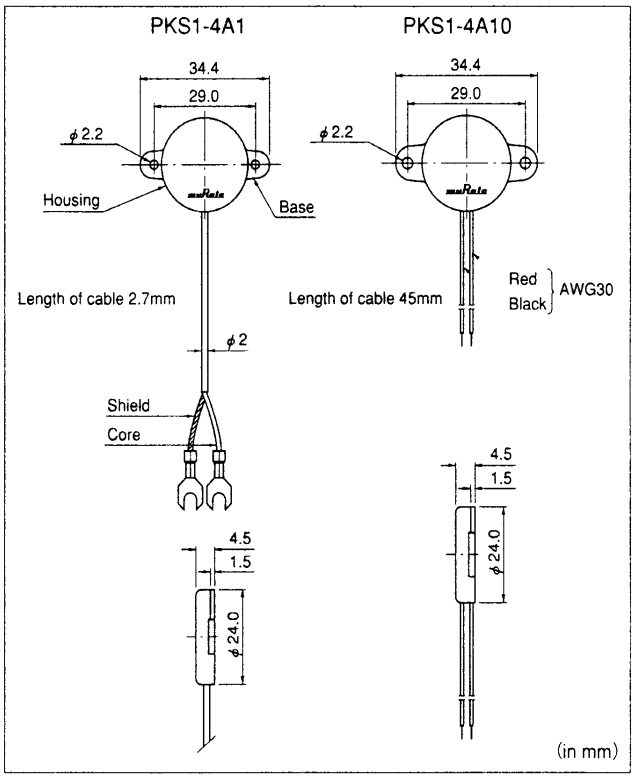
Part Number	PKS1-4A1/PKS1-4A10
Output Voltage	40mVp/G typ. (25 ℃ ,20M Ω Load,10Hz～1KHz)
Capacitance	10000pF±30% (25℃, 1KHz)
Insulation Resistance	30M Ω min (100VDC)

※1G=9.8m/s²

■NOTICE

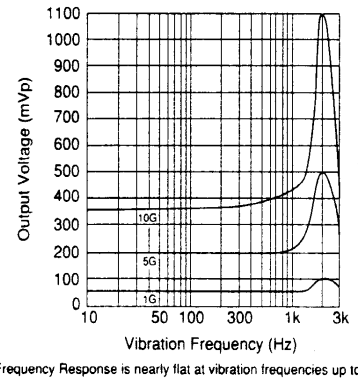
1. The component should be fixed at the place where the main axis of sensor has same direction as the vibration axis.
2. Please avoid applying DC-bias by connecting DC blocking capacitor or some other way because; otherwise, the component may be damaged.

■DIMENSIONS



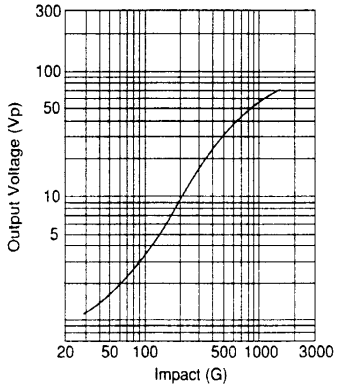
■CHARACTERISTICS DATA

●Frequency Response



Frequency Response is nearly flat at vibration frequencies up to 1kHz.

●Output Voltage vs. Impact Response



※Impact wave is 1/2 sine wave.
Output voltage is nearly proportional to the acceleration of impact.