

Piezoelectric Film Sensors

Pro-Wave now presents a series of mechno-electrical sensors and detectors produced by advanced piezoelectric polymer film technology. The polymer film of polyvinylidene fluoride (PVF2) exhibits a conspicuous piezoelectric effect and also has high compliance comparing with other piezoelectric crystals or ceramic materials. Because of its superior piezoelectric strain constant (g value), 10-20 times larger than piezoelectric ceramic, it is an ideal sensing material for converting mechanical to electrical energy.

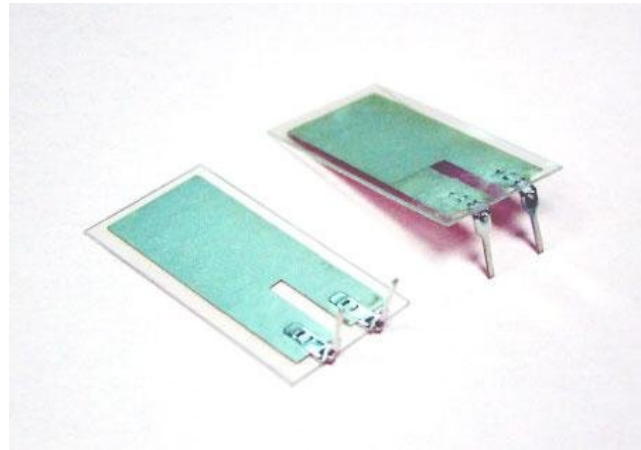
Besides the standard products shown on this catalogue, we are also developing a series of sensing devices by using this particular piezoelectric thin film material. Please contact with us for your special needs.

Features

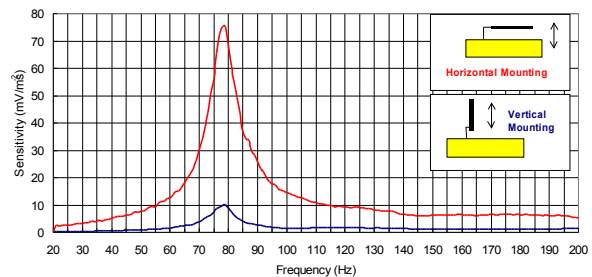
- High Mechno-electrical efficiency in planar, thickness and hydrostatic modes
- Low mechanical and acoustic impedance
- High resistance to moisture
- Pliant, flexible, tough and lightweight
- Self-generated voltage, non-contact, rustless, free of sparking

Applications

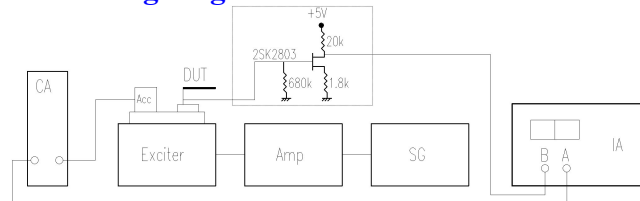
- Vibration sensors and motion detectors
- Low weight accelerometers
- Pressure or force sensors
- Keyboards, keypads and touch panels
- Coin and impact sensors
- Microphones and headset speakers
- Other mechno-electrical and electro-mechanical devices



Frequency response



Measuring diagram



SG: Programmable Signal Source HP 8165A

Amp: Power Amplifier

Exciter: Exciter B&K 4809

Acc: Accelerometer B&K 8309

DUT: Device (FS-2513P) under test

CA: Charging Amplifier B&K 2635

IA: Impedance Analyzer HP4192



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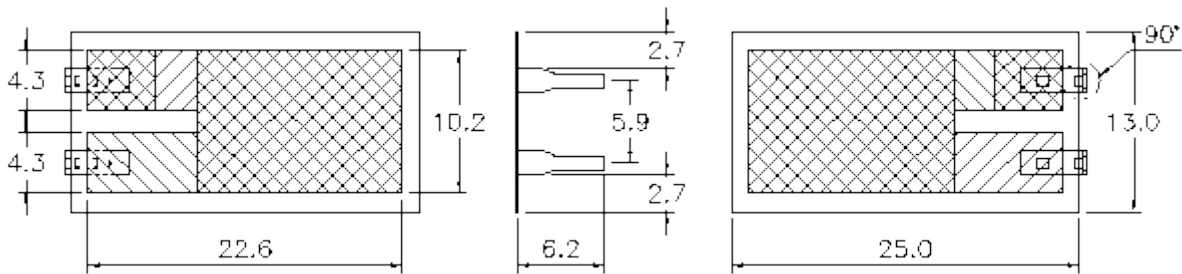
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Specifications

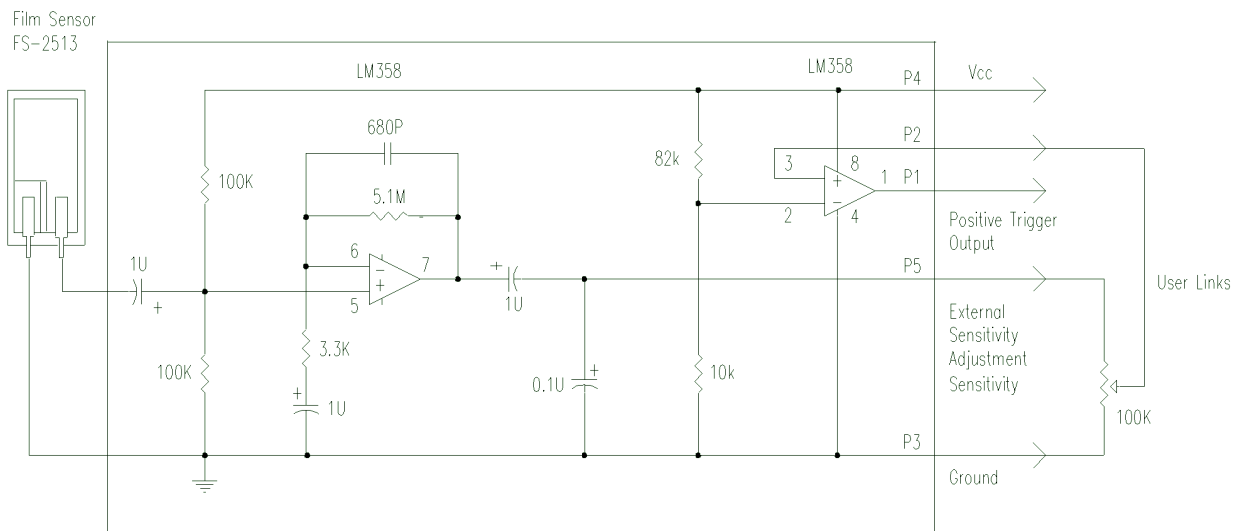
Model Number	FS-2513P	Unit
Type	Lead Pins	-
Voltage sensitivity at fr	70	mV/ms^{-2}
Transverse sensitivity	10	mV/ms^{-2}
Resonant frequency (fr)	80±10	Hz
Capacitance	660±30%	pF@1KHz
Operation voltage (Vcc)	-	DC volts
Operation current	-	mA
Max. output current	-	mA
Operation temperature	-20 - +60	°C
Storage temperature	-40 - +70	°C

Dimensions in mm



Driving circuit & pin assignment of model FD-2513P

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