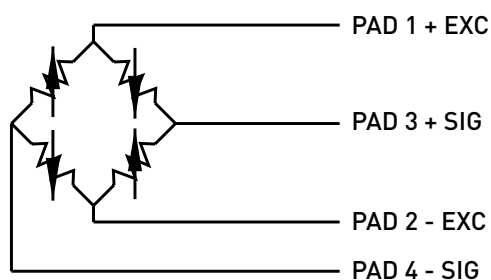


Model 71M series Piezoresistive accelerometer

Features

- 2000 to 60 000 g full range
- High resonant frequency
- DC response
- 200 mV full scale output
- Negligible zero shift after shock
- 0.06 gram weight



SCHEMATIC

Description

The Endevco® model 71M series of subminiature SMT piezoresistive accelerometers are rugged undamped accelerometers designed for shock measurements.

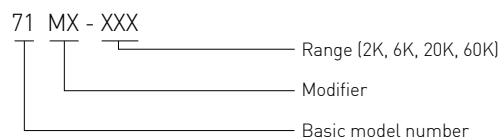
Endevco micro-machines the sensing system of the 71M from a single piece of silicon. This etched silicon chip includes the inertial mass and strain gages arranged in an active four-arm Wheatstone bridge circuit complete with a novel on-chip zero balance network.

The low mass, extremely small size and unique construction of the element blends an exceptionally high resonant frequency with characteristics such as low output impedance, 3x overrange, and zero damping for no phase shift. The high resonant frequency of these sensors permits their survival in the presence of the high frequency components in a shock pulse that could shatter the seismic system of accelerometers having lower resonance.

High resonant frequencies and zero damping also allow the accelerometers to respond accurately to fast rise time, short duration shock motion. With a frequency response extending down to dc (steady state accelerations) these transducers are ideal for measurement of long duration transients, and permit integration of the acceleration data to obtain velocity and displacement.

U.S. Patents 4,498, 229, 4,605,919 and 4,689,600 apply to this unit.

Model number definition



Electrical connections	5 Vdc excitation	10 Vdc excitation
Pre-tinned for hand solder reflow	71M5	71M10
Un-tinned for conductive epoxy or wire bonding or resistance welding	71M1	71M4

Accessories

Product	Description	72
136	DC amplifier, 3 channel benchtop	Optional
436	DC amplifier, 3 channel rack mount	Optional