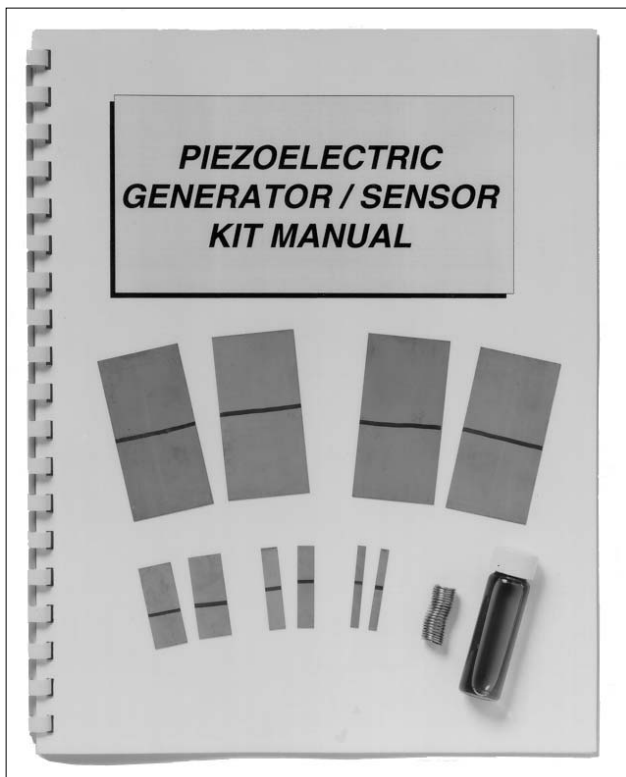


PIEZOELECTRIC GENERATOR/SENSOR KIT



DESCRIPTION

The generator / sensor kit is designed as a development tool for those who wish to quickly verify the feasibility of a piezoelectric approach to an idea or application. The piezoelectric materials provided in this kit represent some of the basic building blocks employed in constructing bending generators, extension generators, and stack generators. Because the piezoelectric effect is reversible, the same elements are used as motors and actuators. PSI-5A4E piezoceramic was chosen for the kit because it offers the fewest voltage, temperature, and stress restrictions. It is, by far, the most commonly used piezoceramic in the industry.

The manual is intended to help the user model, fabricate, and test a prototype generator as rapidly as possible. For example, quick and simple techniques for cutting ceramic elements to desired size are described. Equations for open circuit voltage, closed circuit current, resonant frequency, maximum stress, and capacitance allow the user to scale experimental results to many actuator designs.

THE KIT INCLUDES

- Piezoceramic Single Sheets; PSI-5A4E
2 pieces: 1.25" x 2.5" x .0075"
- Standard 2-Layer Brass Shim Piezo Elements
Poled for series operation
 - 1 piece: 2.50" x 1.250" x .020"
 - 1 piece: 1.25" x 0.500" x .020"
 - 1 piece: 1.25" x 0.250" x .020"
 - 1 piece: 1.25" x 0.125" x .020"
 Poled for parallel operation
 - 1 piece: 2.50" x 1.250" x .020"
 - 1 piece: 1.25" x 0.500" x .020"
 - 1 piece: 1.25" x 0.250" x .020"
 - 1 piece: 1.25" x 0.125" x .020"
- Piezoelectric Generator / Sensor Manual
Introduction to Piezoelectricity
Designing Piezoelectric Generators
Building Piezoelectric Generators
- Wires, Solder and Flux
- **ROHS** Compliant / Piezo exempted

PIEZO GENERATOR APPLICATIONS

- Self energized accelerometers
- Activity & rate response sensors
- Vibration control & damping
- Dynamic strain instrumentation
- Small size, light weight, self-power, solid state sensors

ORDERING INFORMATION

Piezoelectric Generator/Sensor Kit

PART NO.

KGS-006

PRICE

\$499