

# The Modal Shop Products

PCB Piezotronics' sister company, The Modal Shop, based in Cincinnati, Ohio, USA, specializes in sound and vibration sensing systems for the multichannel, acoustics, modal, vibration testing and NVH markets. Electrodynamic shakers, calibration systems and modal testing equipment are available, in addition to sensors, test equipment rental and application engineering support.

## Highlights

- Mini shakers
- SmartShaker™ w/ Integrated Amplifier
- Modal shakers
- Dual purpose design
- Modal and general vibrate

## Electrodynamic Exciter Family

The electrodynamic exciter family includes compact size shakers rated from 110 lbf (489 N) down to 4.5 lbf (20 N). Available designs include the revolutionary new SmartShaker™ with integrated power amplifier, a variety of mini, through-hole modal, dual purpose platform and accelerometer calibration shaker, and the new SmartAmp™ power amplifiers. These transducers are ideal for applications ranging from experimental modal analysis and general vibration testing of small components and sub-assemblies to accelerometer calibration.

Electrodynamic Shaker Products							
Model Number	2004E / 2007E	K2004E01 / K2007E01	2025E	2060E	2100E11	2075E	2110E
Max Force* lbf (N) pk	4.5(20) / 7(31)	4.5(20) / 7(31)	13 (58)	60 (267)	100 (440)	75 (334)	110 (489)
Stroke, in pk-pk	0.2 / 0.5	0.2 / 0.5	0.75	1.4	1	1	1
Weight, lb (kg)	7 (3)	7 (3)	13 (6)	37 (17)	33 (15)	35 (16)	54 (25)
Max Frequency	9 kHz / 11 kHz	9 kHz / 11 kHz	9 kHz	6 kHz	5.4 kHz	6.5 kHz	6.5 kHz
<b>Notes</b>							
*system dependent. For complete specifications on shakers, systems, amplifiers, and other structural test products and accessories (shaker stand, AirRide mounts, etc), please visit <a href="http://www.modal-shop.com">www.modal-shop.com</a> .							

## Transducer Electronic Data Sheet (TEDS)

Most PCB® accelerometers are available to order with TEDS functionality by specifying the unit's model number with a "TLD" prefix. Model 400B76 TEDS Sensor Interface Kit provides users with full access to support both reading and writing information to the TEDS sensor (e.g. sensor sensitivity). An intuitive graphical interface allows data to be transferred over a USB port to and from the sensor with a single mouse click.

Model 400B76 supports IEEE 1451.4 compliant TEDS sensors including: single axis and triaxial accelerometers, impact hammers, impedance heads, charge amplifiers, microphones and microphone preamplifiers. Model 400B76 supports more TEDS templates than any other available TEDS Sensor Interface Kit.

## Rotational Speed Measurements

The LaserTach™ ICP® tachometer senses the speed of rotating equipment and outputs an analog voltage signal for referencing vibration signals to shaft speed. The sensor allows for measurements up to 30,000 RPM from distances as far as 20in (51cm). A BNC jack connects the unit to any constant current excitation source (> 3mA).

The PulseDriver™ is a preamplifier/divider for tachometer signals. It conditions a voltage pulsetrain from a magnetic pickup or similar sensor for input to standard ICP® sensor signal conditioners. An adjustable divider circuit divides the pulse train down to a square wave with a fundamental frequency equal to the shaft speed.

Hochwertige Messtechnik und Beratung aus einer Hand



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