

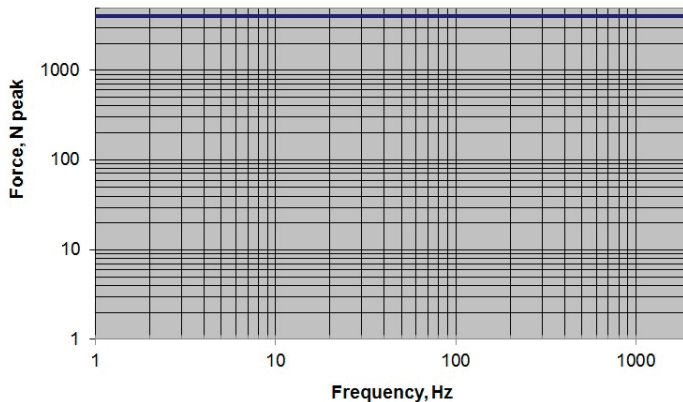
MODAL 1000 Exciter Technical Specifications

There's more to using and buying Modal Exciters than meets the eye. Misjudging modal testing applications can be fraught with unforeseen hazards that contaminate data and miscalculating hidden costs can be risky. MB Dynamics is the leading world-wide supplier of MODAL Exciters and MODAL Excitation Testing Applications.

MODAL 1000 Exciter



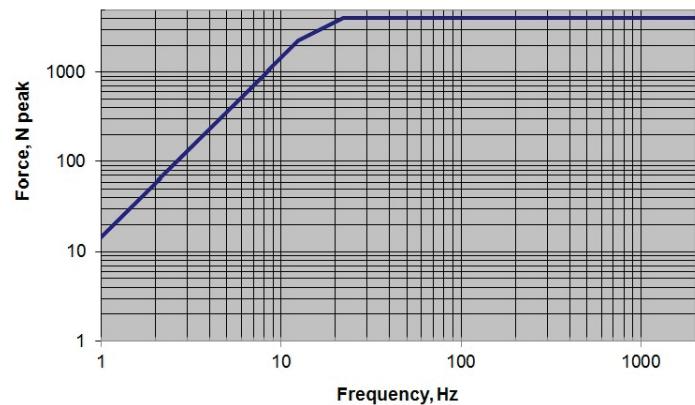
MODAL 1000 Performance, Blocked Armature



Blocked Armature: high stiffness reflected by test item back into MODAL 1000 and no movement of MODAL 1000 body. A measure of low frequency force output

Free Armature: no stiffness reflected by test item back into MODAL 1000 and no movement of MODAL 1000 body. A measure of low frequency force output

MODAL 1000 Performance, Free Armature



MODAL 1000, *continued*

Technical Specifications for MODAL 1000

Force Output with Forced Air Cooling	* 4,000N pk sine excitation (900 lbf); 2,600N RMS random (585 lbf)
Force Output with Ambient Air Cooling	* 2,000N pk sine excitation (450 lbf); 1,300N RMS random (290 lbf)
Stroke	* 45mm peak-to-peak (1.8 in. p-p)
Velocity	* 1.75m/s peak (70 inches/second)
Acceleration	* 25 g pk continuous sine (MODAL 1000 moving element only)
Frequency Range	* DC-2000 Hz
Moving Element Weight	* 16.4kg (36 lbs.)
Moving Element Axial Resonance	* > 2,000 Hz
Driven-Axis Stiffness	* 31 N/mm (180 pounds/inch)
Exciter Weight, incl. Trunnion Base	* 364kg (800 pounds)
Stinger Kit (Stainless Steel)	* ½” hex stingers: three 400mm long, three 200mm long; each has 3/8-16 UNC threads on one end and ¼-28 UNF-2B on the other
Stinger Attachment	* Chuck (1/2” drill size) and wrench key for tightening on stingers
Shaker Attachments	* Floor mount with trunnion base; with vertical-only base; suspension mount with optional turnbuckles & trunnion base
Dimensions in trunnion base	* 570mm X 485mm Footprint X 910mm High (to top of chuck)
Drive Cable Length	* 10m (32 ft.)
Power Amplifier	* MB Model PVL-S (see Data Sheet; amplifier only, no field supply)
Cooling (optional)	* Portable unit; optional Quiet Enclosure < 60dBA; or shop air
Accessory Kit & Inertial Mass (optional)	* Bolt-on-masses with nuts & bolts for mounting: 38kg and 50kg
Force Sensor (optional)	* 4,450N (1,000 lbs.) tension & compression; 5mV/lb (1124 mV/kN)

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