

MT-161 *Modal Thruster*



GENERAL DESCRIPTION

The MT-161 thruster's compact size, long stroke and lightweight armature make it well suited for all types of modal testing. The thruster has a compression collett and features a central through-hole suitable for modal stinger and pre-tensioned wire testing applications. The standard shaker trunnion allows the shaker to be operated in any axis from vertical to horizontal. The trunnion base also facilitates bolting the shaker in place for rigid applications or the use of adjustable mounting feet.

Reliability is assured through the use of the latest composite materials in the unique, all flexure, armature suspension design. The design provides for low axial stiffness while retaining high lateral stiffness and has no rolling or sliding components to wear out and/or produce unwanted harmonics or distortion. When combined with the correct Labworks linear power amplifier, the system is unmatched for reliability, performance and cost.

- 25 POUNDS PK SINE FORCE
- .75 INCH STROKE
- .005 to .125" DIA. COLLETT
- STINGER AND WIRE THROUGH HOLE
- TRUNNION MOUNTING BASE

 **Labworks Inc.**

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STANDARD FEATURES

- AIR COOLED
- PERMANENT MAGNET DESIGN
- HIGH LATERAL STIFFNESS
- ARMATURE SUSPENSION



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MT-161 SPECIFICATIONS¹

PERFORMANCE

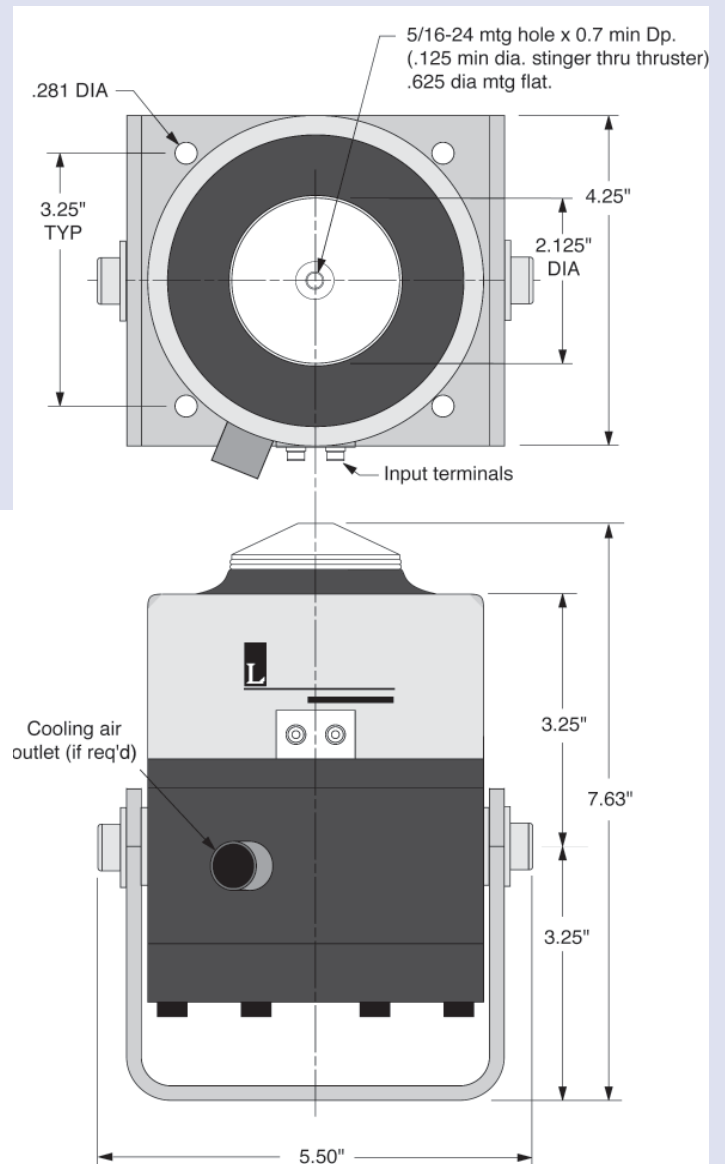
Sine force	
Natural cooling	13 lbf pk
With blower	25 lbf pk
Max displacement	
Continuous pk-pk	0.70 in
Mechanical Stop	0.75 in
Maximum velocity	120 ips pk
Acceleration ^{1,2}	
Bare table (w/collett)	71 g pk
0.5 lb load	63 g pk
2.5 lb load	9 g pk
Maximum acceleration	
Resonant	200 g pk

PHYSICAL

Armature weight	0.35 lb
Suspension stiffness	15 lb/in
Rated armature current	
Natural cooling	9 A rms
With blower	17 A rms
Frequency range ²	DC-10,000 Hz
Fundamental resonance ²	9,000-10,000 Hz
Stray magnetic field	
Measured 1.5" above collett	<10 gauss
Measured 0.5" from body	<15 gauss
Cooling	80 CFM/22 in H ₂ O
Dimensions	7.13" H x 4.8" W x 4.25" D
Shaker weight	11 lbs

OPTIONS

Cooling blower: Required for operation above 13 bf. Recommended for continuous operation above 11 lbf pk.
 Vibration isolation mounts.
 Modal stingers and mounts.



¹ Please see systems ratings for additional specifications.

² Load dependent.

Specifications subject to change. Consult factory for latest specifications.