

## Features

- ▶ Compact design
- ▶ Low profile: 0.8"
- ▶ Center aperture: 0.25" diameter
- ▶ Closed loop control
- ▶ **pico** sensor technology

## Typical Applications

- ▶ High resolution Z-axis alignment
- ▶ AFM
- ▶ Metrology

### LabVIEW Compatible USB Interfaces



Examples, tutorial, and  
Nano-Route 3D supplied  
with Nano-Drive USB  
interfaces.



Nano-MZ (actual size) constructed from aluminum.

## Product Description

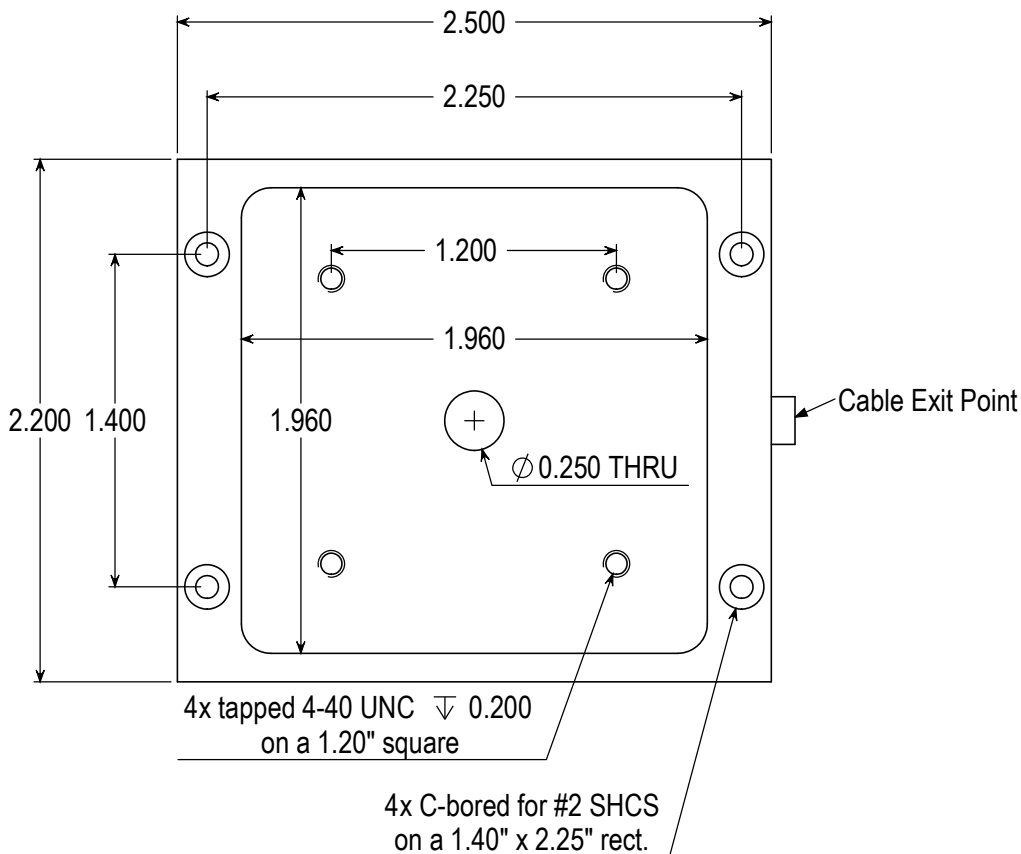
The Nano-MZ is a compact Z-axis nanopositioning system with a small center aperture designed to be easily integrated into existing instrumentation where space is restricted. Internal position sensors utilizing proprietary **pico** technology provide absolute, repeatable position measurement with picometer accuracy under closed loop control. A related model, the Nano-M3Z, includes

additional “tip” and “tilt” motions ( $\theta_x, \theta_y$ ) to the linear motion in the Z-axis. The Nano-MZ can also be used as a “building block” with other systems to form complex nanopositioning assemblies with multi-axis motion - see the Nano-M350 and the Nano-Man5.

## Technical Specifications

Range of motion (Z) .....	25 $\mu\text{m}$
Resolution .....	0.05 nm
Resonant Frequency .....	1100 Hz $\pm$ 20%
Stiffness .....	1.0 N/ $\mu\text{m}$
Recommended max. load (horizontal)* .....	0.5 kg
Body Material .....	Aluminum or Invar
Controller .....	Nano-Drive <sup>®</sup>

\* Larger load requirements should be discussed with our engineering staff.



**Note: All Dimensions in Inches**

