

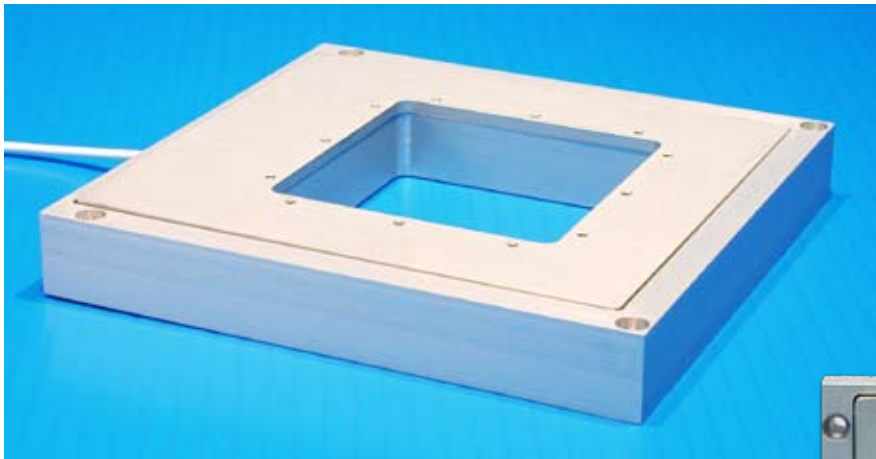
Nano-Z Series

Features

- ▶ Engineered to retrofit to most microscopes
- ▶ Low profile: 0.8"
- ▶ Large aperture: 2.6" x 2.6"
- ▶ Long range motion: 100 μm or 200 μm
- ▶ Closed loop control
- ▶ **pico** sensor technology

Typical Applications

- ▶ Optical microscopy
- ▶ High speed confocal imaging
- ▶ High speed auto focus
- ▶ Super resolution microscopy



Nano-Z100 (1-axis) constructed from aluminum.



Nano-Z100 with top surface slide holder.

Product Description

The Nano-Z Series are single axis (Z-axis) nanopositioning systems with a low profile design, allowing it to be easily retrofit into existing instrumentation where space is restricted. With a large center aperture, the Nano-Z Series is ideal for confocal imaging and microscopy applications which require long range travel and fast, repeatable positioning. Combined with the high output power

Nano-Drive™85, the Nano-Z Series is capable of a 3-4 ms step response - ideal for high speed, high precision applications. Internal position sensors utilizing proprietary **pico** technology provide absolute, repeatable position measurement with picometer resolution under closed loop control. Nano-Z Series stage dimensions can be customized to fit into OEM applications.

Compatible Software Packages



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

MetaMorph® USB and analog motion control

SLIDEBOOK 6.0 Analog motion control, 1 or 2 axes.



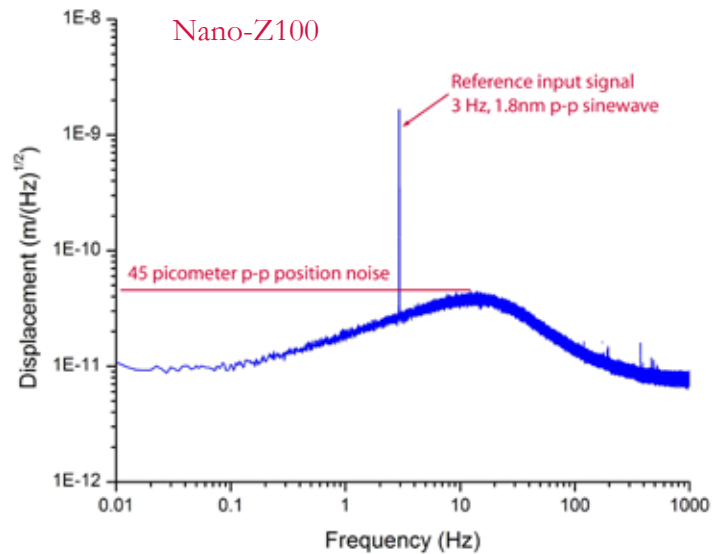
Nano-Z100 with re-entrant slide holder. Re-entrant slide holders are often used with an oil immersed objective lens.

Technical Specifications

Range of motion (Nano-Z100)	100 μm
Range of motion (Nano-Z200)	200 μm
Resolution (100/200 μm).....	0.2/0.4 nm
Resonant Frequency (100 μm)	600 Hz $\pm 20\%$
Resonant Frequency (200 μm)	450 Hz $\pm 20\%$
Stiffness.....	1.0 N/ μm
Recommended max. load (horizontal)*	0.5 kg
Body Material	Aluminum or invar
Controller	Nano-Drive [®] /Nano-Drive [®] 85

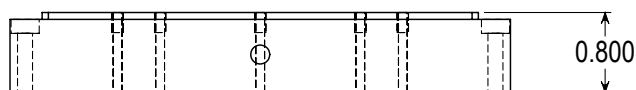
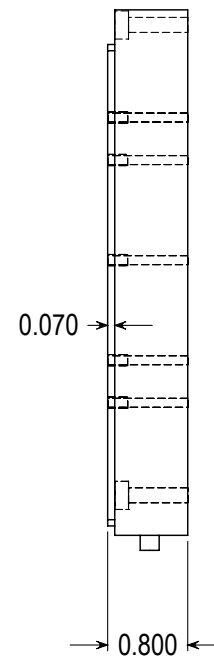
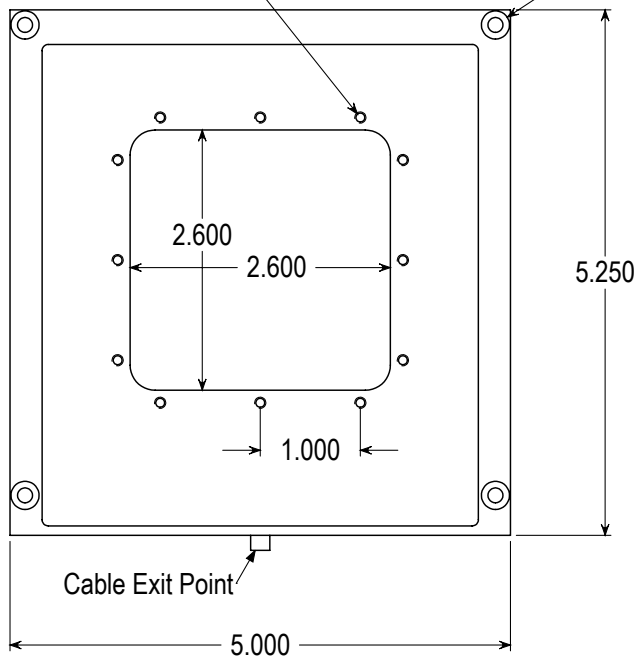
* Larger load requirements should be discussed with our engineering staff.

Low Position Noise



12 x 4-40 UNC ∇ 0.200
on a 2.85" square

4 x C-bored for #6 SHCS
on a 4.70" square



Note: All Dimensions in Inches