

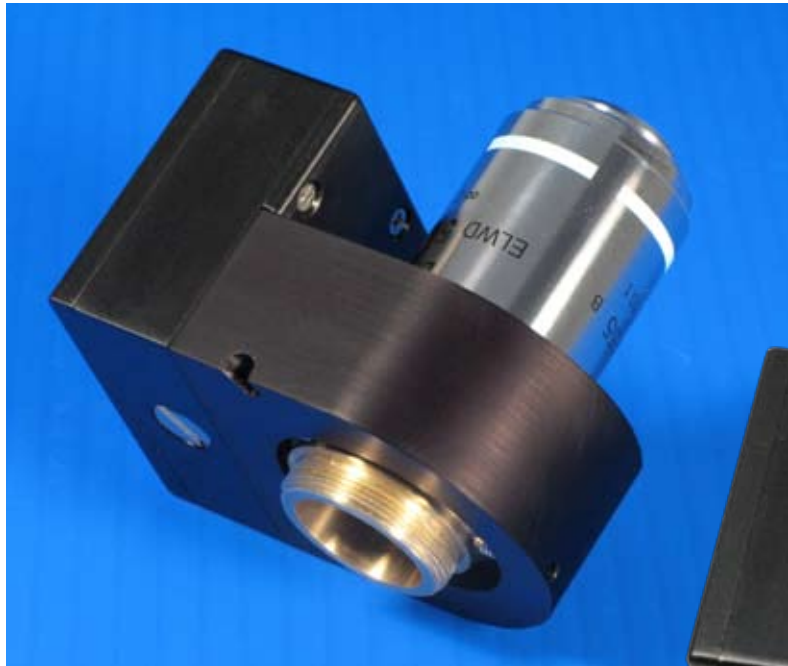
Nano-F25HS

Features

- ▶ High speed objective lens focusing element
- ▶ Interchangeable, quick mount adapters
- ▶ 25 μm range of motion
- ▶ Compatible with all microscopes
- ▶ Closed loop control
- ▶ **pico** sensor technology






Typical Applications

- ▶ Microscope focusing element
- ▶ Confocal imaging
- ▶ Auto focus



Nano-F25HS constructed from aluminum.

Compatible Software Packages

 LabVIEW	 Image-Pro [®] AMS Analog motion control	 µManager THE OPEN SOURCE MICROSCOPY SOFTWARE USB motion control
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.



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Product Description

The Nano-F25HS is a high speed nanopositioner focusing element with 25 microns of travel. Twice as fast as standard longer range objective lens nanopositioners, the Nano-F25HS uses a compact direct drive flexure design to reduce the step response time while maintaining a size that easily adapts to microscopes or other optical systems. Internal position sensors utilizing proprietary **pico** technology provide absolute, repeatable position

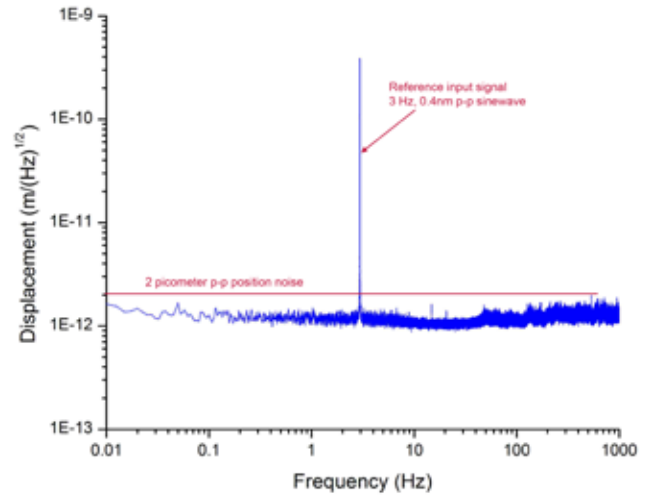
measurement for precise closed loop control. The Nano-F25HS can be used as stand-alone system or in conjunction with other Mad City Labs nanopositioning stages. Quick mount threaded adapters are available for RMS, M25, and M26 lens threads. Adapter threads are specified when the system is ordered. Customized mounting arrangements can also be provided for non-microscope installations.

Technical Specifications

Range of motion 25 μm
 Resolution 0.05 nm
 Resonant Frequency
 Unloaded 1.2 kHz $\pm 20\%$
 Loaded with 200g lens 450 Hz $\pm 20\%$
 Runout (θ_x) 2 μrad
 Runout (θ_y) 2 μrad
 Stiffness 1.5 N/ μm
 Recommended max. load* 0.5 kg
 Body Material Al and Brass
 Threaded Adapters RMS, M25, M26
 Controller Nano-Drive[®]

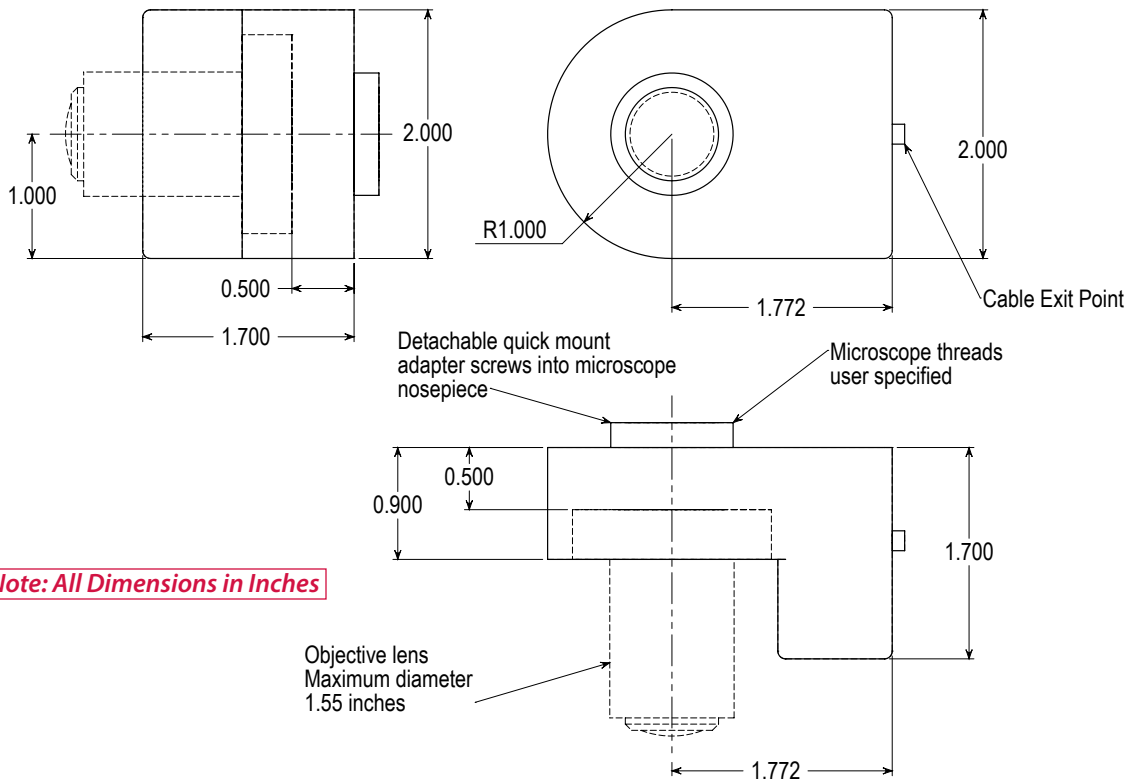
* Larger load requirements should be discussed with our engineering staff.

Low Position Noise



Note: See page 15 for custom high speed lens positioning systems.

Nano-F25HS with RMS, M25, or M26 adapters



Note: All Dimensions in Inches