

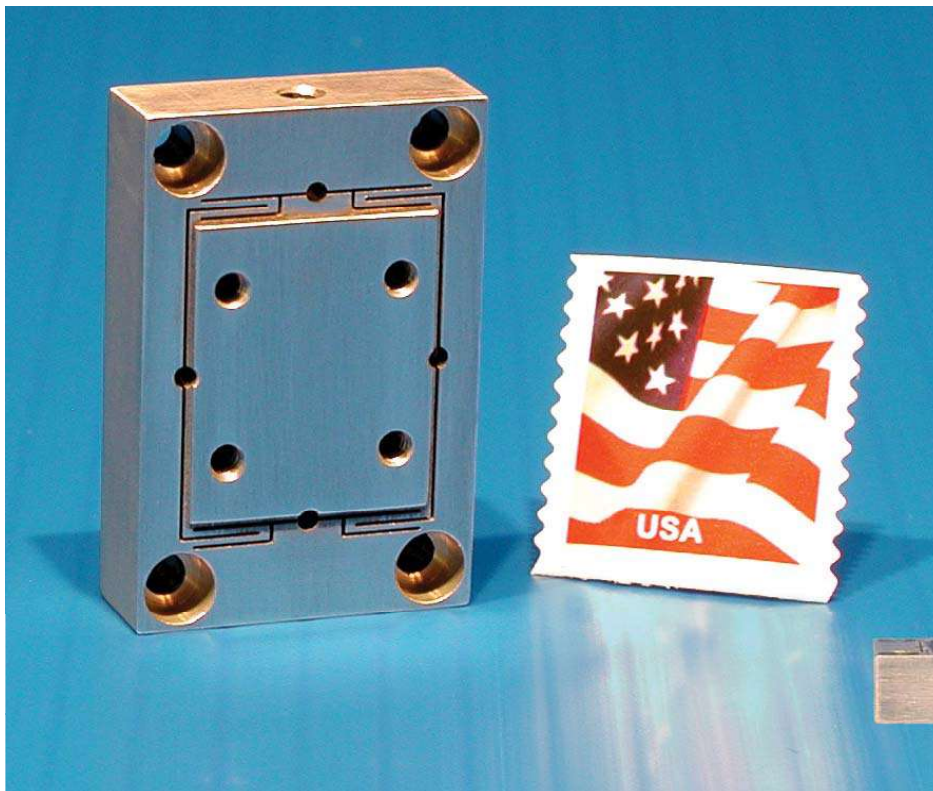
Nano-Mini

Features

- ▶ Ultra small footprint: 1" x 1.5"
- ▶ Stackable for XY motion
- ▶ Closed loop control
- ▶ Titanium or invar construction
- ▶ **pico** sensor technology

Typical Applications

- ▶ Optical fiber alignment
- ▶ Optical positioning
- ▶ Interferometry



Nano-Mini constructed from titanium.

LabVIEW Compatible USB Interfaces



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



Actual Size

Product Description

The Nano-Mini is one of the smallest flexure guided nanopositioning stages available. Designed for optimum performance on a small footprint, this stage uses an innovative mini-cross section multilayer piezo ceramic which allows for a stiff stage to translate 10 microns with picometer precision. This unique design makes it ideal for applications in precision metrology and microscopy.

Internal position sensors utilizing proprietary **pico** technology provide absolute, repeatable position measurement with picometer accuracy under closed loop control. Available in titanium or invar.

Technical Specifications

Range of motion	10 μm
Resolution	0.02 nm
Resonant Frequency	1.5 kHz $\pm 20\%$
Resonant Frequency (50g load)	650 Hz $\pm 20\%$
Stiffness	1.0 N/ μm $\pm 20\%$
θ_{roll} , θ_{pitch} (typical)	≤ 1 μrad
θ_{yaw} (typical)	≤ 2 μrad
Recommended max. load (horizontal)*	0.5 kg
Recommended max. load (vertical)*	0.15 kg
Body Material	Titanium or Invar
Controller	Nano-Drive [®]

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

