

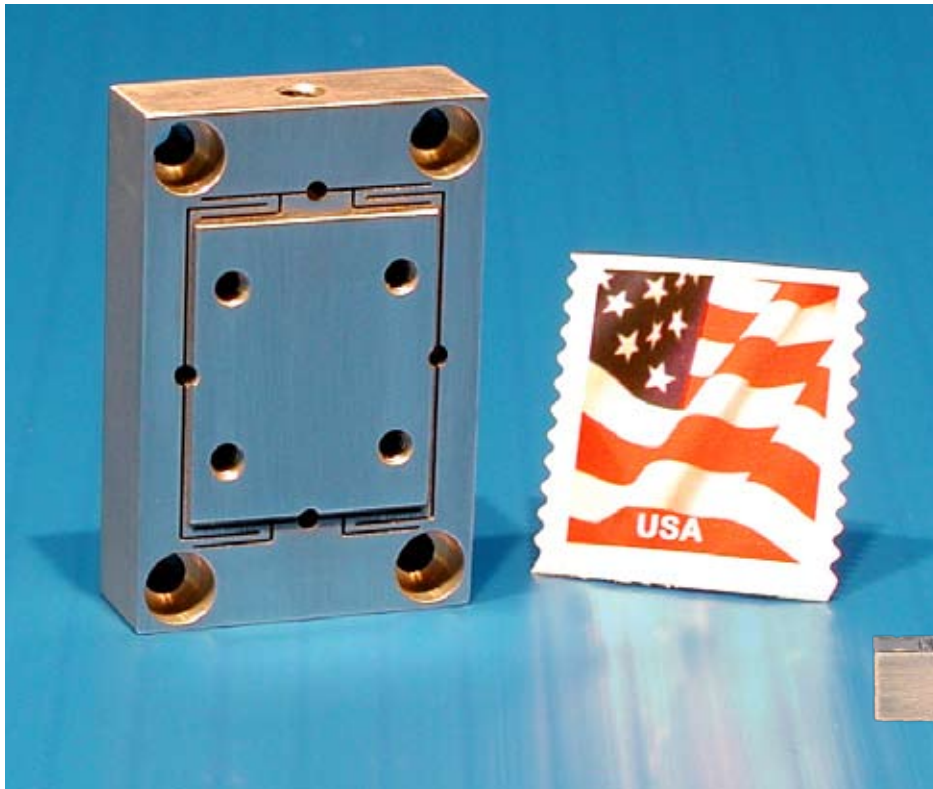
# Nano-Mini

## 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<sup>®</sup> 3D supplied  
with Nano-Drive<sup>®</sup> USB  
interfaces.

## 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 $\mu\text{m}$
Resolution .....	0.02 nm
Resonant Frequency .....	1.5 kHz $\pm 20\%$
Resonant Frequency (50g load) .....	650 Hz $\pm 20\%$
Stiffness .....	1.0 N/ $\mu\text{m}$ $\pm 20\%$
$\theta_{\text{roll}}$ , $\theta_{\text{pitch}}$ (typical) .....	$\leq 1$ $\mu\text{rad}$
$\theta_{\text{yaw}}$ (typical) .....	$\leq 2$ $\mu\text{rad}$
Recommended max. load (horizontal)* .....	0.5 kg
Recommended max. load (vertical)* .....	0.15 kg
Body Material .....	Titanium or Invar
Controller .....	Nano-Drive <sup>®</sup>

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

