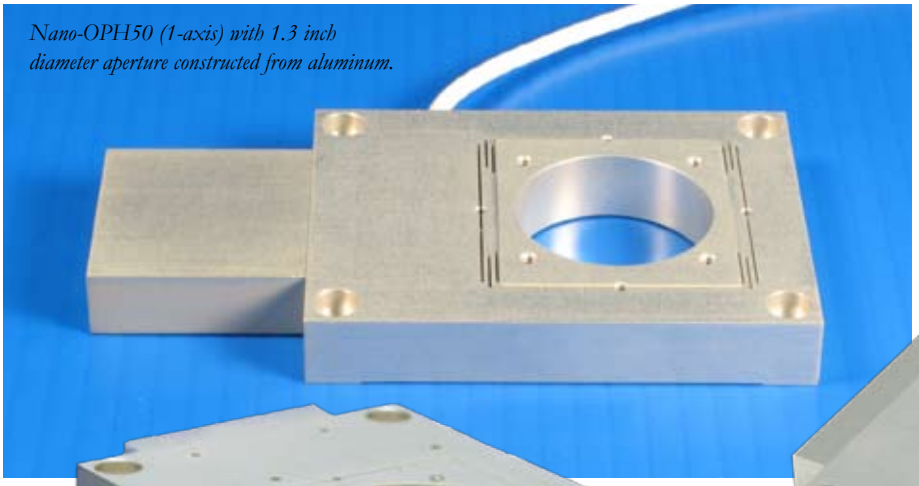
Nano-OPH Series

Features

- *High speed, direct drive*
- *Stackable for multi-axis motion*
- *30, 50, and 100 μm ranges of motion*
- *picoQ® sensor technology*
- *Closed loop control*

Typical Applications

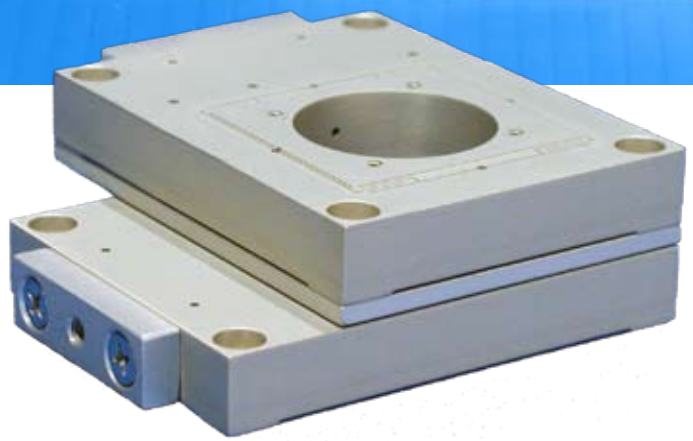
- *Interferometry*
- *Nanomanipulation*
- *High speed lens focusing*
- *Fiber optics*
- *NSOM*



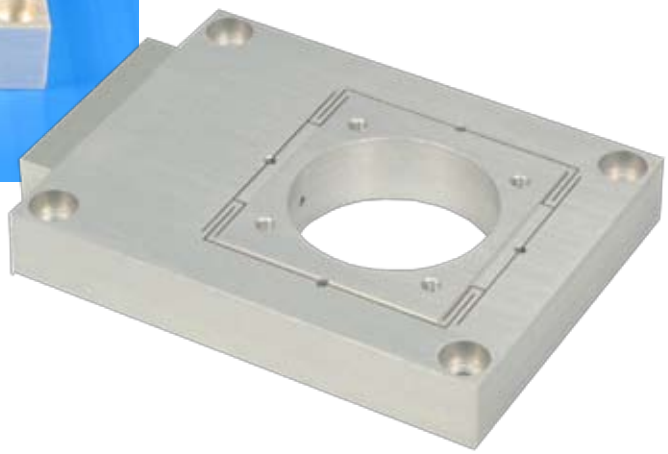
Nano-OPH50 (1-axis) with 1.3 inch diameter aperture constructed from aluminum.

LabVIEW Compatible USB Interfaces

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



Stacked Nano-OPH30's (2-axis) constructed from aluminum.



Nano-OPH30 (1-axis) constructed from aluminum.

Product Description

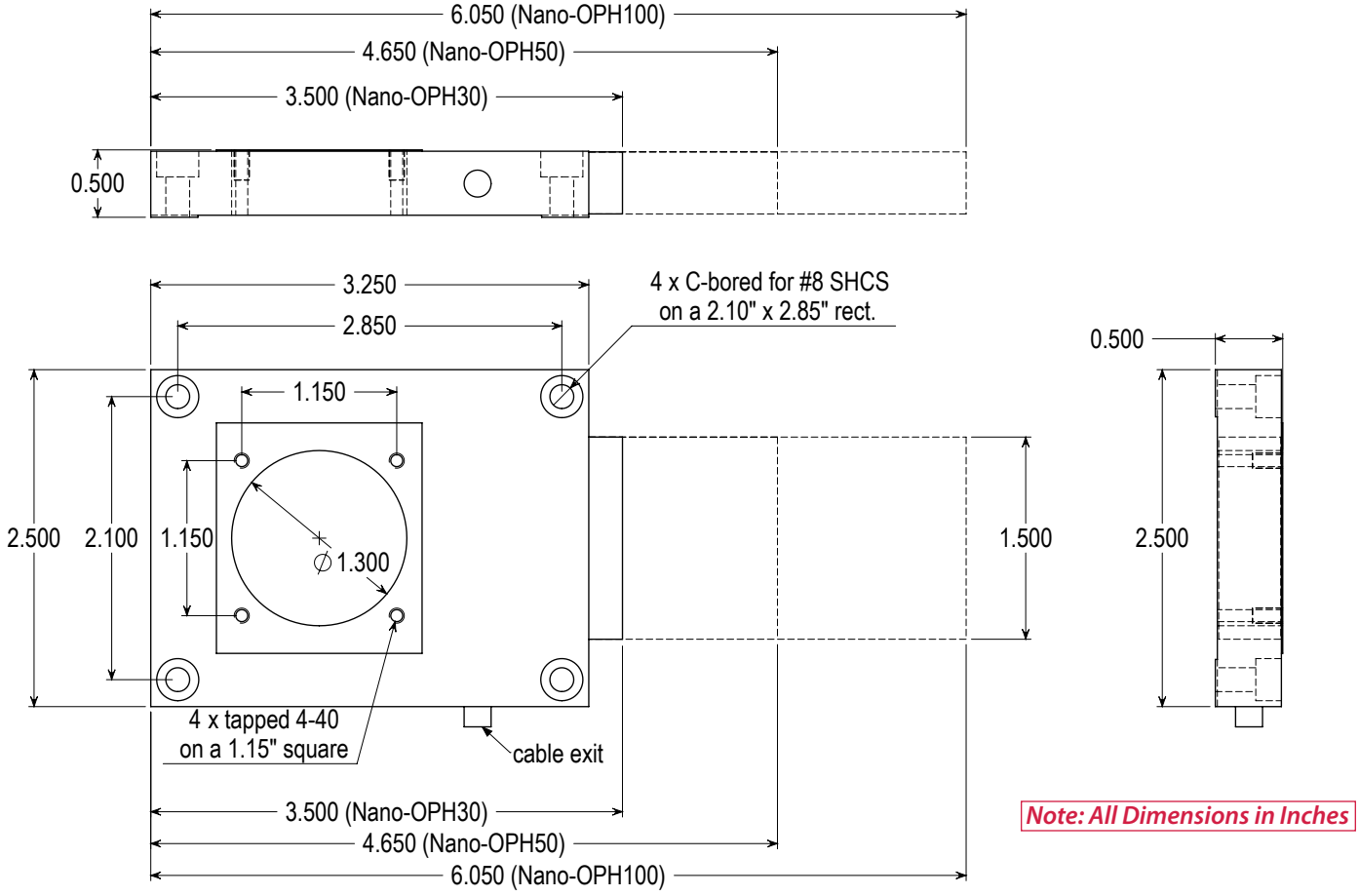
Like the Nano-OP Series, the Nano-OPH Series is a versatile group of compact single axis nanopositioners which can be configured to fit into a wide variety of applications. The addition of a 1.3 inch diameter aperture through the stage makes the Nano-OPH especially useful for precise motion in optical experiments. Individual, single axis stages may be combined to form multi-axis systems. The Nano-OPH Series are available with 30, 50, and 100 micron ranges of motion. They can be constructed from aluminum, invar, or titanium and can be customized to suit unique requirements. Internal position sensors utilizing proprietary picoQ® technology provide absolute, repeatable position measurement with picometer resolution under closed loop control.

Technical Specifications

Range of motion (Nano-OPH30) ..... 30 µm
Range of motion (Nano-OPH50) ..... 50 µm
Range of motion (Nano-OPH100) ..... 100 µm
Resolution (30/50/100 µm) ..... 0.06/0.1/0.2 nm
Resonant Frequency ..... 3.5 kHz ±20%
Resonant Frequency (100g load) ..... 1.5 kHz ±20%
Stiffness ..... 3.0 N/µm ±20%

θ_{roll} , θ_{pitch} (typical) ..... ≤1 µrad
θ_{yaw} (typical) ..... ≤2 µrad
Recommended max. load (horizontal)* .....1.0 kg
Recommended max. load (vertical)* .....0.5 kg
Body Material ..... Al, Invar or Titanium
Controller ..... Nano-Drive®

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



Note: All Dimensions in Inches