

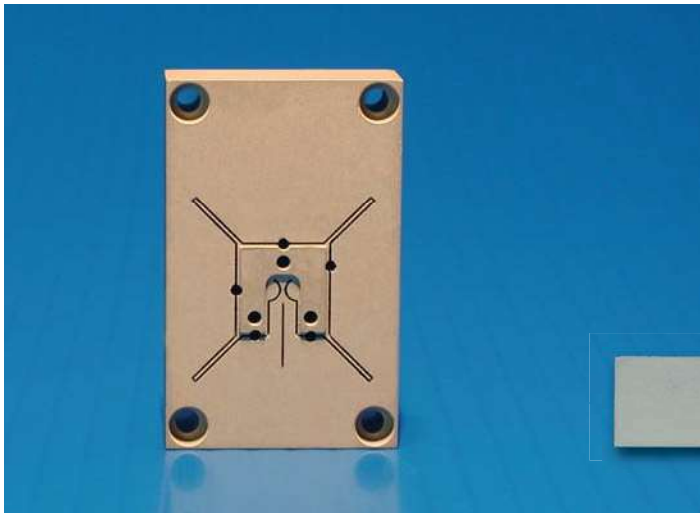
Nano-Theta

Features

- ▶ Precision rotation: 2 mrad range
- ▶ Accessible and well defined axis of rotation
- ▶ Mount in any orientation
- ▶ High resolution: 4 nanoradians
- ▶ **pico** sensor technology
- ▶ Closed loop control

Typical Applications

- ▶ Laser beam scanning
- ▶ Lithography
- ▶ FBG writing
- ▶ Interferometry



Nano-Theta (actual size) constructed from aluminum.



Side view

LabVIEW Compatible USB Interfaces



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

Product Description

The Nano-Theta is a unique piezo-actuated rotational stage having 2 milliradians of total motion. With nanoradian resolution, the Nano-Theta is designed for applications in lithography, optical disk manufacturing, and laser beam tracking or scanning. The innovative design of the Nano-Theta incorporates a readily accessible and

well-defined axis of rotation which allows a mirror to be mounted so that it is co-planar with the axis of rotation. Internal position sensors utilizing proprietary **pico** technology provide absolute, repeatable position measurement with nanoradian accuracy under closed loop control.

Technical Specifications

Range of motion 2.0 mradians
 Resolution 4 nradians
 Resonant Frequency (unloaded) 2 kHz \pm 20%
 Body Material Al or Invar
 Controller Nano-Drive[®]

