

Nano-Z500

Features

- ▶ Super long range (500 μm) Z-axis motion
- ▶ Multiwell plate sized aperture (4.3" \times 6.3")
- ▶ Closed loop control
- ▶ Low profile, easy to retrofit
- ▶ **pico** sensor technology

Typical Applications

- ▶ High speed confocal microscopy
- ▶ High throughput fluorescence microscopy
- ▶ Super resolution microscopy

Nano-Z500 with multi-well plate.



Compatible Software Packages



Image-Pro
AMS
Analog motion control

μ Manager
THE OPEN SOURCE
MICROSCOPY SOFTWARE
USB motion control



Examples, tutorial, and
Nano-Route* 3D sup-
plied with Nano-Drive*
USB interfaces.



MetaMorph
USB and analog
motion control



Analog motion control,
1 or 2 axes.



Nano-Z500 constructed from aluminum.

Product Description

The Nano-Z500 is a long range, Z-axis nanopositioner specifically designed to hold multiwell plates used in biomedical research. High-throughput single cell fluorescence microscopy and high speed, high resolution confocal imaging can be accomplished while simultaneously adjusting the Z-axis position to remove the effects of multiwell plate irregularities. The Nano-Z500 has true flexure guided motion and contains internal posi-

tion sensing. Utilizing proprietary **pico** technology, the position sensors provide absolute, repeatable position measurement for closed loop control with a resolution of better than 1 nm over the full 500 micron travel range. In addition to high resolution spatial imaging, the Nano-Z500's 15 ms step response allows entire Z-section acquisitions with minimal photo bleaching.

Technical Specifications

Range of motion (Z) 500 μ m
 Resolution 1 nm
 Resonant Frequency 250 Hz \pm 20%
 Recommended max. load (horizontal)* 0.5 kg
 Body Material Aluminum
 Controller Nano-Drive[®]

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

