

Nano-ZL Series

Features

- ▶ 500 μm or 100 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-ZL Series with multi-well plate.



Compatible Software Packages

 LabVIEW	 Image-Pro AMS USB and analog motion control	 µManager THE OPEN SOURCE MICROSCOPY SOFTWARE USB motion control
Examples, tutorial, and Nano-Route* 3D supplied with Nano-Drive* USB interfaces.	 MetaMorph USB and analog motion control	 SLIDEBOOK 5.0 Analog motion control, 1 or 2 axes.



Nano-ZL Series constructed from aluminum.

Product Description

The Nano-ZL Series are long range, Z-axis nanopositioners 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-ZL Series has true flexure guided motion and contains

internal position sensing. Utilizing proprietary PicoQ[®] 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 and sub-nanometer for the shorter 100 micron travel range. In addition to high resolution spatial imaging, the Nano-ZL step response allows entire Z-section acquisitions with minimal photo bleaching.

Technical Specifications

Range of motion (ZL100)	100 μ m
Resolution	0.2 nm
Range of motion (ZL500)	500 μ m
Resolution	1 nm
Resonant Frequency	250 Hz
Recommended max. load (horizontal)*	0.5 kg
Body Material	Aluminum
Controller	Nano-Drive [®]

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

