

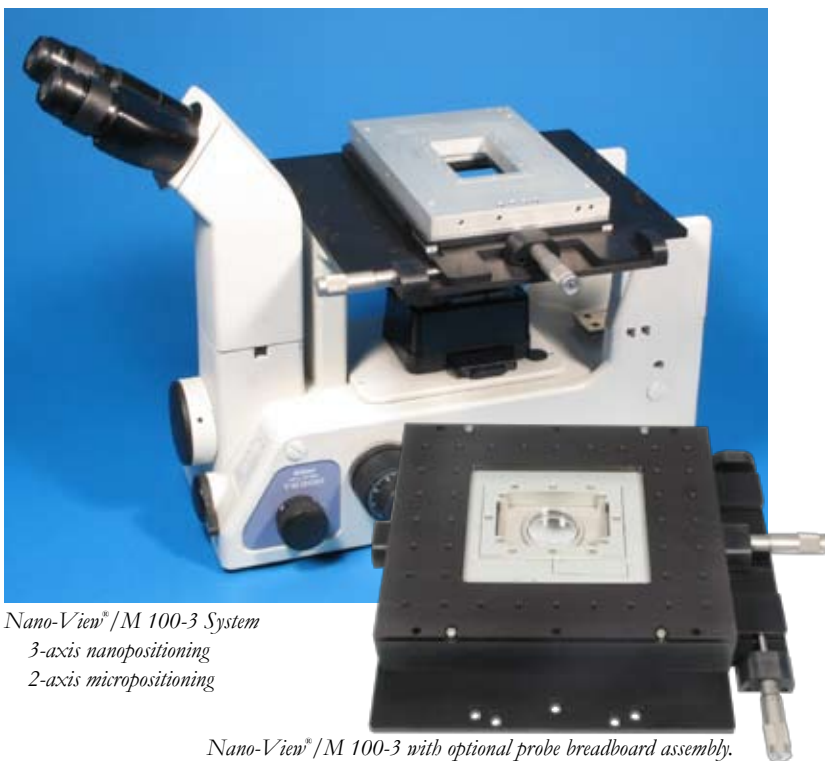
Nano-View®/M Series

Features

- ▶ Manual micropositioning with nanopositioning
- ▶ 1" (25mm) 2-axis coarse positioning
- ▶ 2-axis or 3-axis nanopositioning
- ▶ Large aperture
- ▶ Retrofit to inverted microscopes
- ▶ **pico** sensor technology
- ▶ Closed loop control

Typical Applications

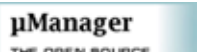


- ▶ Optical microscopy, easy to retrofit
- ▶ Confocal imaging
- ▶ Fluorescence imaging
- ▶ Single molecule spectroscopy
- ▶ Particle tracking
- ▶ Nanomanipulation
- ▶ STORM and PALM imaging



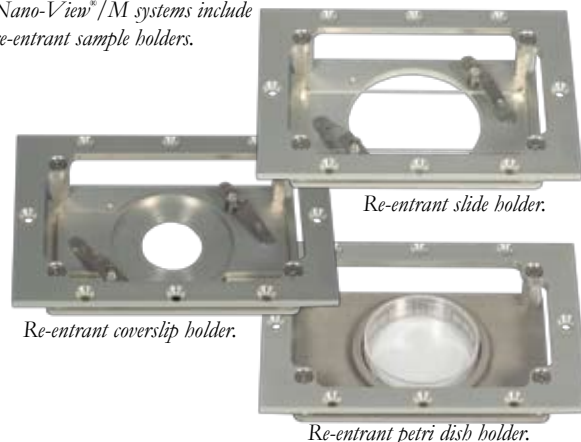
Nano-View®/M 100-3 System
3-axis nanopositioning
2-axis micropositioning

Nano-View®/M 100-3 with optional probe breadboard assembly.

Compatible Software Packages

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

Nano-View®/M systems include re-entrant sample holders.



Re-entrant coverslip holder.

Re-entrant slide holder.

Re-entrant petri dish holder.

Product Description

The Nano-View®/M is a fully integrated positioning system for use with inverted optical microscopes. Easy to operate and affordable, the Nano-View®/M combines a manual micrometer driven, two axis, linear motion stage with high resolution, long range nanopositioners - either ultra-low profile or ultra-high speed. A stable blocking force of 10 N built into each axis of the coarse positioning stage provides a secure base for precision nanopositioning. The overall height of the Nano-View®/M with the low profile nanopositioners is only slightly more than standard manual XY stages. An optional breadboard assembly with threaded mounting holes ($1/4$ -20 on a 1 inch pattern or M6 on a 25mm pattern) is a convenient

mounting surface for probes. Nanopositioner ranges of motion extend up to 300 microns per axis (X,Y and Z). Internal position sensors utilizing proprietary **pico** technology provide absolute, repeatable position measurement. The Nano-View®/M system includes the Nano-Drive® controller and is compatible with user written LabVIEW software. Standard Nano-View®/M systems are offered for the following inverted microscopes: Olympus IX/IX2 Series, Nikon TE2000/Ti Series, Leica DMI Series, and Zeiss Axiovert/Axio Observer Series. Nano-View®/M systems designed to fit other setups, including direct mounting to optical tables, may also be requested.

Technical Specifications

Low Profile Nanopositioners

Axes of motionXY or XYZ
 Ranges of motion (XY or XYZ) 100/200/300 μm
 Resolution (100/200/300 μm) 0.2/0.4/0.6 nm
 Resonant Frequencies
 X axis (100/200/300 μm)400/350/300 Hz $\pm 20\%$
 Y axis (100/200/300 μm)400/350/300 Hz $\pm 20\%$
 Z axis (100/200/300 μm)400/300/200 Hz $\pm 20\%$
 Stiffness1.0 N/ μm
 $\theta_{\text{roll}}, \theta_{\text{pitch}}$ (typical) $\leq 1 \mu\text{rad}$
 θ_{yaw} (typical) $\leq 3 \mu\text{rad}$
 Recommended max. load (horizontal)*0.5 kg
 Body MaterialAl, Invar or Titanium
 Controller Nano-Drive®

High Speed Nanopositioner

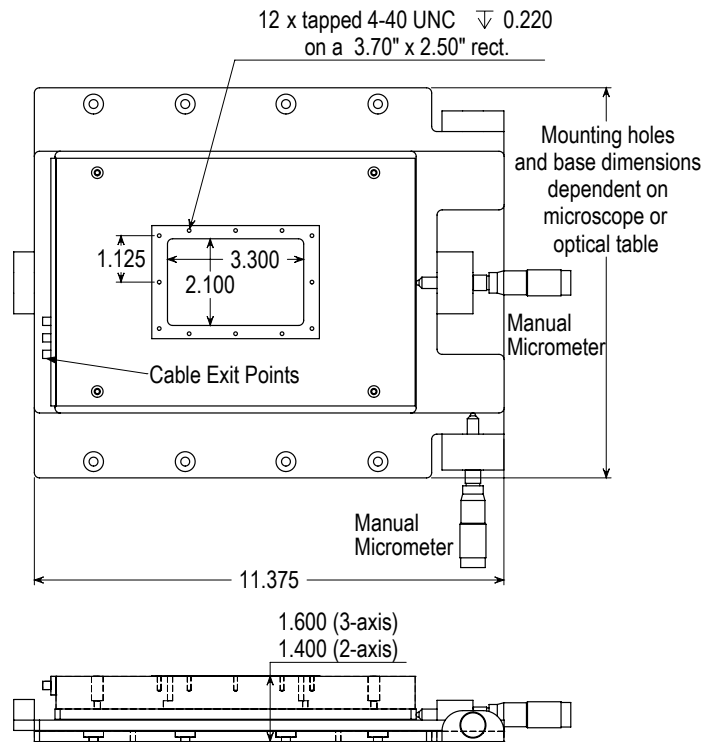
Axes of motionXYZ
 Ranges of motion (XY) 75 μm
 Range of motion (Z) 50 μm
 Resolution (50/75 μm)0.1/0.15 nm
 Resonant Frequency (XYZ) 1000 Hz $\pm 20\%$
 Stiffness1.0 N/ μm
 $\theta_{\text{roll}}, \theta_{\text{pitch}}$ (typical) $\leq 1 \mu\text{rad}$
 θ_{yaw} (typical) $\leq 3 \mu\text{rad}$
 Recommended max. load (horizontal)* 100 g
 Body Material Aluminum
 Controller Nano-Drive®85

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

Micropositioning Stage

Axes of motion XY
 Ranges of motion (XY) 25mm
 Graduations 10 μm
 Vernier graduations 1 μm
 Body Material Aluminum

Note: Additional information regarding the built-in nanopositioning systems can be found on the catalog pages which describe the Nano-LPS Series, the Nano-BioS Series,, and the Nano-LPQ.



Note: All Dimensions in Inches