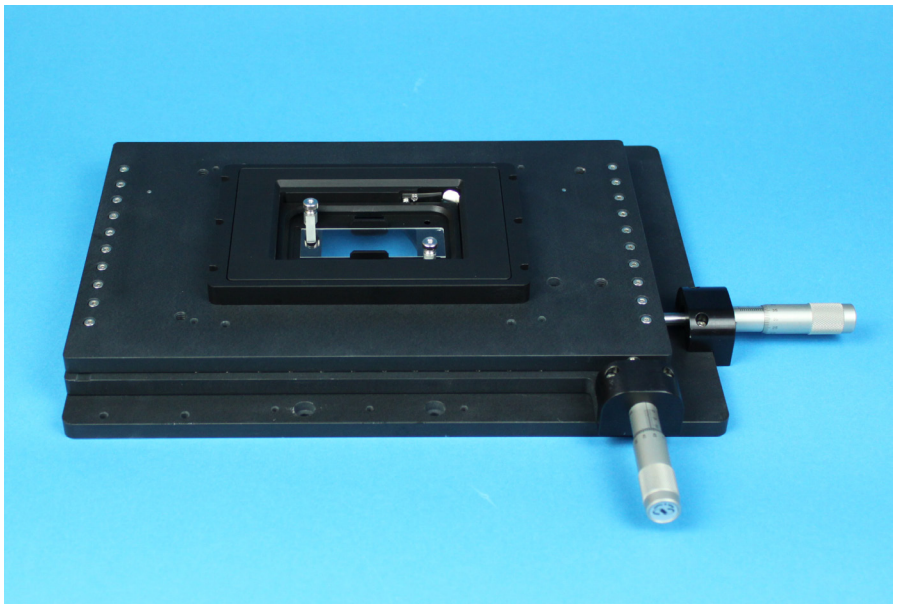
MCL-MANNZ

Features

- *Manual micropositioning with nanopositioning*
- *1" (25mm) 2-axis coarse positioning*
- *Z-axis nanopositioning*
- *Fits 3" (75mm) slides and 35mm petri dishes*
- *Fits inverted optical microscopes and optical tables*
- *picoQ® sensor technology*
- *Closed loop control*

Typical Applications

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



MCL-MANNZ shown with 75mm slide holder

Slide holder

35mm petri dishes

Available sample holders for the MCL-MANNZ

Product Description

The MCL-MANNZ is an integrated micro-nanopositioning system for use with inverted optical microscopes. Easy to operate and affordable, the MCL-MANNZ combines a manual micrometer driven, two axis, linear motion stage with a high resolution z-axis nanopositioner. 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 design of the MCL-MANNZ ensures that the sample height remains within the proper focal range of the microscope. The z-axis nanopositioner has a range of motion of 200 microns. Internal position sensors utilizing proprietary picoQ® technology provide absolute, repeatable position measurement. The MCL-MANNZ system includes the compact version of the Nano-Drive® controller and it is compatible with user written LabVIEW software. Standard MCL-MANNZ systems are offered for the following inverted microscopes: Olympus IX Series, Nikon TE/Ti Series, Leica DMI Series, and Zeiss Axiovert/Axio Observer Series. MCL-MANNZ systems designed to fit other setups, including direct mounting to optical tables, may also be requested.

Technical Specifications

Micropositioning Stage

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

Compatible Software Packages

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

Image-Pro AMS — *USB and analog motion control*

MetaMorph — *USB and analog motion control*

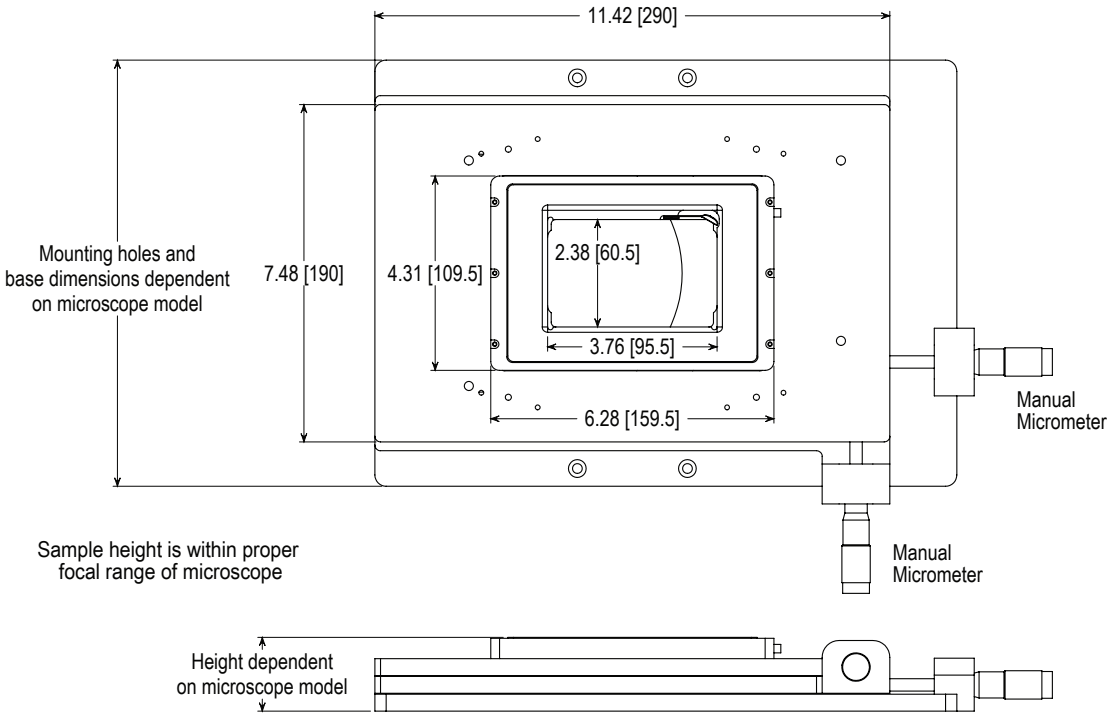
µManager THE OPEN SOURCE MICROSCOPY SOFTWARE — *USB motion control*

SLIDEBOOK 5.0 — *Analog motion control, 1 or 2 axes.*

Nanopositioner

Axis of motion ..... Z
Range of motion ..... 200 µm
Resolution ..... 0.4 nm
Resonant Frequency ..... 250 Hz ±20%
Recommended max. load (horizontal)* ..... 0.5 kg
Body Material ..... Aluminum
Controller† ..... Nano-Drive®C
Digital Interface..... USB 2.0
Analog Input ..... 0V to 10V

* Larger load requirements should be discussed with our engineering staff.
† Compact series of controllers.



All Dimensions in Inches [mm]