

Nano-LPMW

Features

- ▶ Low profile XYZ nanopositioning
- ▶ Unique design for multiwell plates and incubators
- ▶ 200 μm range of motion (XYZ)
- ▶ **pico** sensor technology
- ▶ Closed loop control
- ▶ High stability

Typical Applications

- ▶ Optical microscopy, easy to retrofit
- ▶ Optical trapping experiments
- ▶ Fluorescence imaging
- ▶ Alignment
- ▶ Single molecule spectroscopy
- ▶ Super resolution microscopy



Nano-LPMW designed to accommodate multiwell plates and environmental chambers



Re-entrant slide or petri dish holder



Nano-LPMW with re-entrant slide holder.

Compatible Software Packages



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



USB and analog motion control

NIS-Elements
USB motion control



USB and analog motion control

μ Manager

THE OPEN SOURCE MICROSCOPY SOFTWARE

USB motion control

Product Description

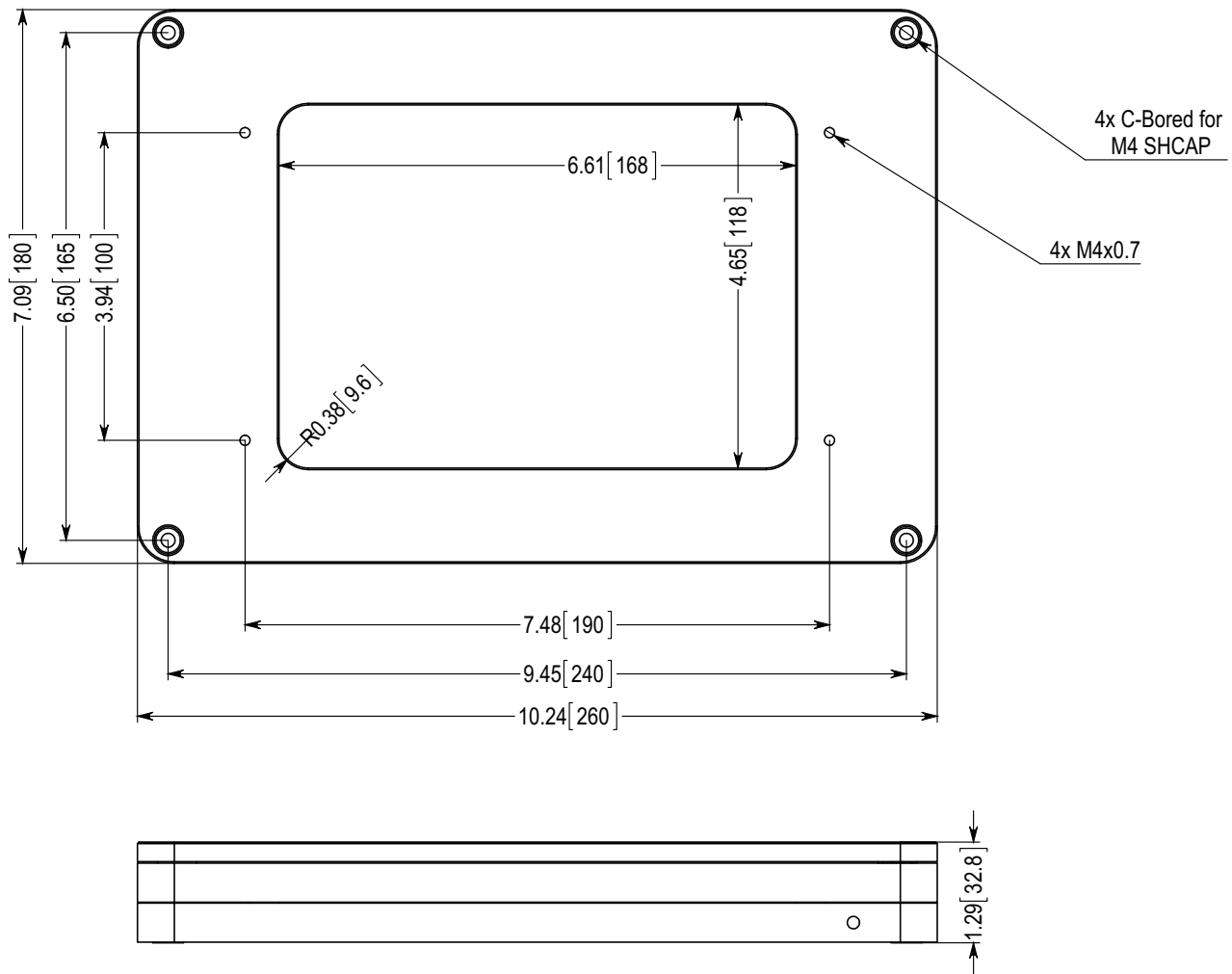
The Nano-LPMW is a unique 3 axis nanopositioning system designed to hold multiwell plates, slides, dishes and environmental chambers. The Nano-LPMW has a low profile and extra-large center aperture with 200 micron range of motion in all three axes. The low height of the Nano-LPMW Series allows it to be easily integrated into existing inverted optical microscopes and is compatible with a range of microscope stages. Like the

related Nano-LPS Series, the Nano-LPMW is ideal for demanding microscopy applications which require long range travel, high stability, and three axes of motion. The Nano-LPMW is the only 3 axis nanopositioning system which can hold multiwell plates and incubators. Precise and repeatable motion is made possible through closed loop control combined with Mad City Labs proprietary PicoQ[®] position sensors.

Technical Specifications

Range of motion	200 x 200 x 200 μm	Recommended max. load (horizontal)*	0.5 kg
Resolution	0.4 nm	Recommended max. load (vertical)*	0.2 kg
Resonant Frequencies		Body Material	Aluminum
X axis	105 Hz $\pm 20\%$	Controller	Nano-Drive [®]
Y axis	90 Hz $\pm 20\%$	Accessories.....	Adapter plate to Ti-S-E/ER
Z axis	195 Hz $\pm 20\%$		Sample holders
θ_x, θ_y (typical).....	$\leq 40 \mu\text{rad}$		Incubators
θ_z (typical).....	$\leq 20 \mu\text{rad}$		

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



Note: All Dimensions in Inches [mm]