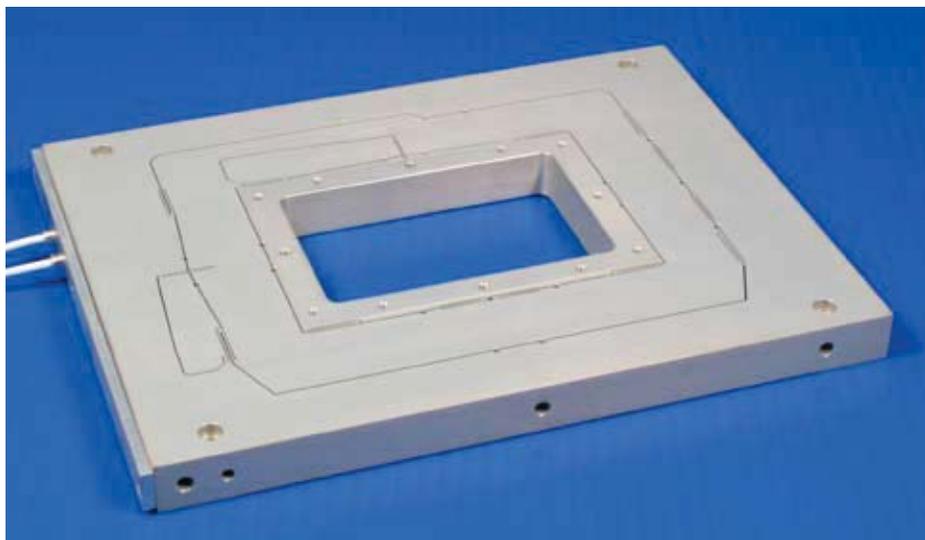


Features

- ▶ Lowest profile 2-axis nanopositioner available
- ▶ Large rectangular aperture for slides
- ▶ $100\ \mu\text{m} \times 100\ \mu\text{m}$, $200\ \mu\text{m} \times 200\ \mu\text{m}$, or $300\ \mu\text{m} \times 300\ \mu\text{m}$ ranges of motion
- ▶ **pico**™ sensor technology
- ▶ Closed loop control

Typical Applications

- ▶ Aperture sized for 3 inch slides
- ▶ Optical microscopy, easy to retrofit
- ▶ Fluorescence imaging
- ▶ Closed-loop AFM scanner
- ▶ Nanolithography



Nano-BioS300 (2-axis) constructed from aluminum.

Compatible Software Packages



Image-Pro
AIMS

Analog motion control



MetaMorph™
USB and analog motion control

Examples, tutorial, and Nano-Route™ 3D supplied with Nano-Drive™ USB interfaces.



µManager
THE OPEN SOURCE MICROSCOPY SOFTWARE
USB motion control

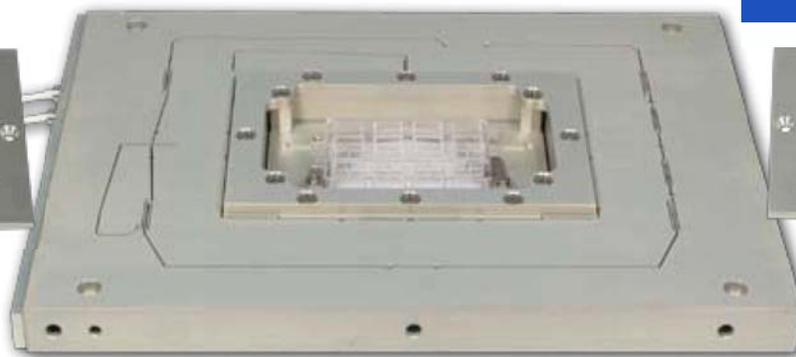
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מייקל סטורץ' | 02.583.2511

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Re-entrant coverslip holder.



Nano-BioS300 with re-entrant slide holder (shown with Lab-Tek chamber slide).



Re-entrant petri dish holder.

Product Description

Like the popular Nano-Bio Series, the new Nano-BioS Series are ultra low profile, two axis nanopositioning systems designed to be easily integrated into existing inverted microscopes, AFM's and other instrumentation where space is limited. The large, rectangular center aperture allows the Nano-BioS to hold re-entrant sample holders for standard 3 inch slides and other similar sized biological samples such as Lab-Tek chamber slides. The Nano-BioS Series stages include internal position sensors with propri-

etary **pico**™ technology to provide absolute, repeatable position measurement and picometer resolution under closed loop feedback control. The Nano-BioS stages are constructed from anodized aluminum and are offered in three ranges of motion: $100\ \mu\text{m}$, $200\ \mu\text{m}$, and $300\ \mu\text{m}$. If motion in all three axes is needed, the Nano-LPS Series is a similar sized microscopy stage which is also able to move in the Z-axis for focusing operations (see Table on Contents on page 3 for Nano-LPS catalog pages).

Technical Specifications

Range of motion (Nano-BioS100)..... 100 μm x 100 μm
 Range of motion (Nano-BioS200)..... 200 μm x 200 μm
 Range of motion (Nano-BioS300)..... 300 μm x 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)280/230/180 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
 Recommended max. load (vertical)*0.2 kg
 Body MaterialAl, Invar or Titanium
 Controller Nano-Drive™

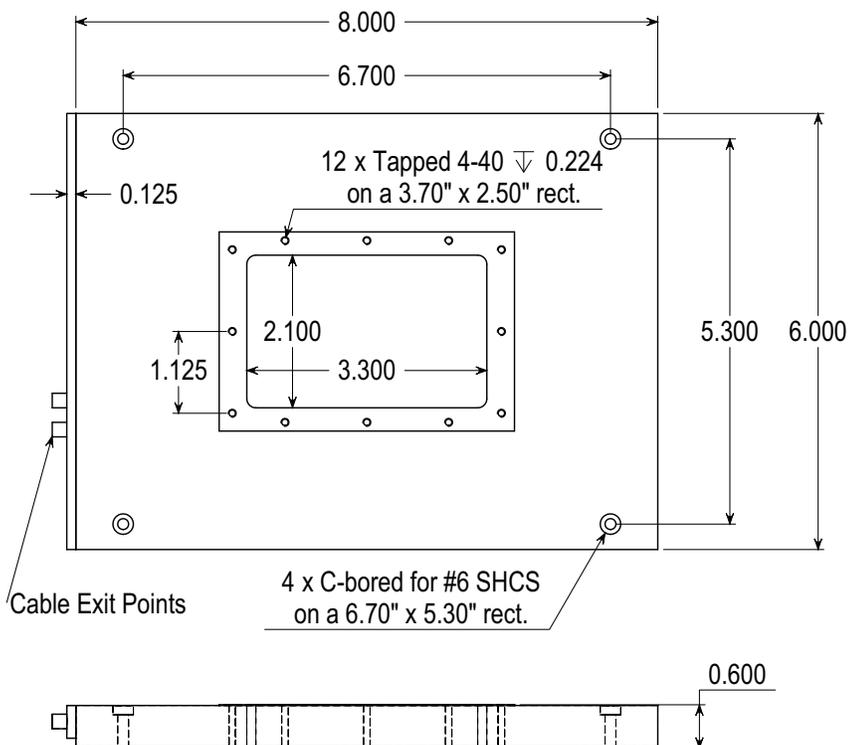
* Larger load requirements should be discussed with our engineering staff.

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Note: All Dimensions in Inches

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