PRIOR®
Scientific

HLD117NN

Linear motor stage for Nikon inverted microscopes

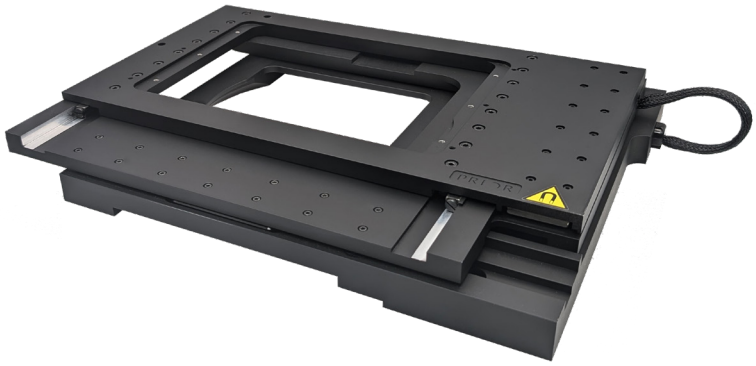
The HLD117NN linear motor stage is adapted for Nikon inverted research microscopes. It is also suitable for OEM devices and customized research applications.

It is the most accurate and repeatable stage Prior offers providing controlled constant velocity for continuous motion scanning or stitch mosaicing. It is suitable for long-term time-lapse imaging, high-content screening, and point-to-point imaging.

The HLD117NN uses low-friction linear drives for exceptional acceleration and deceleration, and operates at higher speeds than stepper motor stages while also being almost silent during operation. It features 0.05 µm linear encoders for enhanced long-range accuracy and linearity.

Its flat top plate allows easy access to the sample for loading and ensures compatibility with a wide range of optics.

This stage is compatible with Nikon NIS Elements software (appropriate package required).



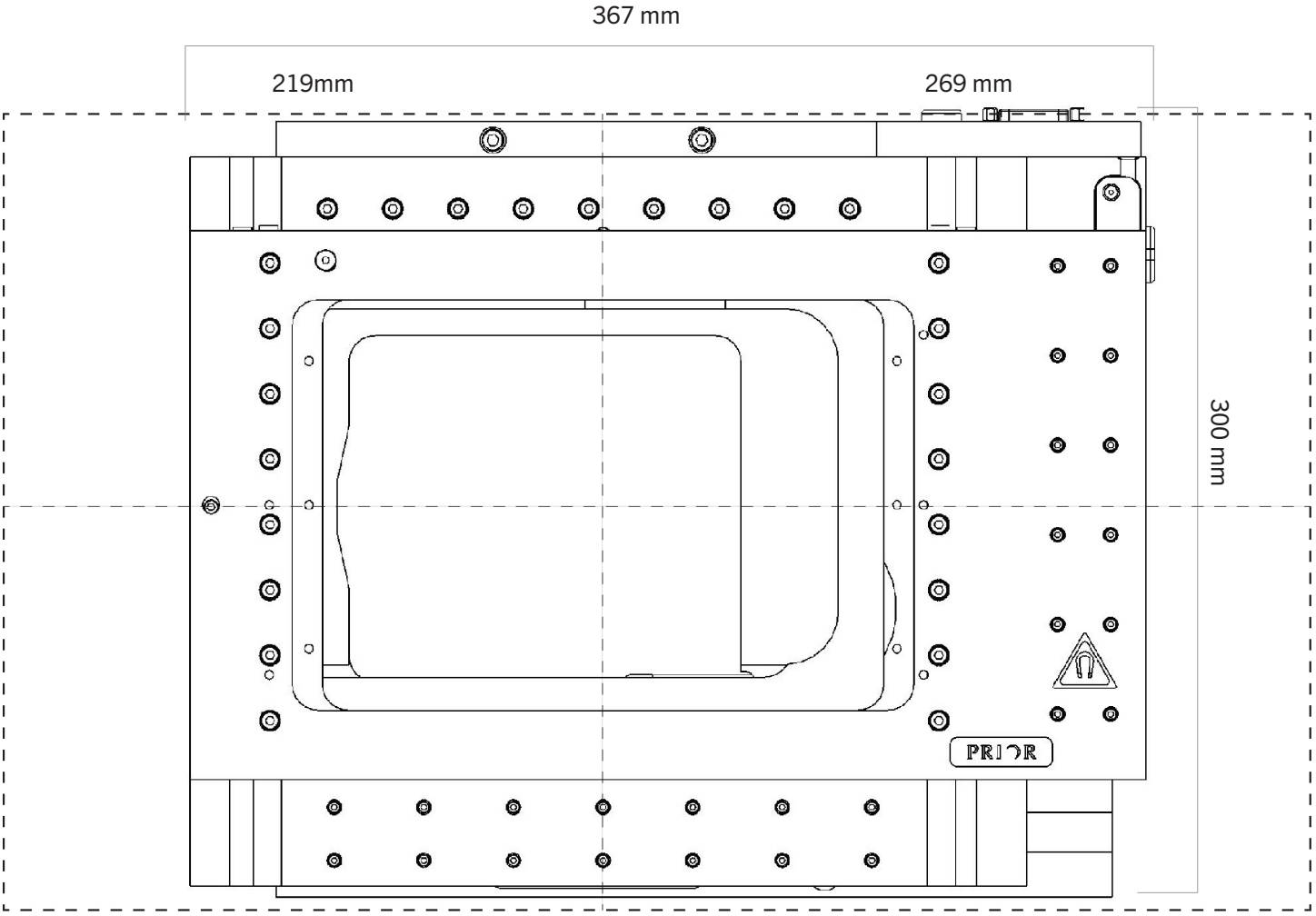
Key Features

- Highest speed, resolution and repeatability of any non-piezo Prior stage.
- Ultra quiet and smooth operation even at high speeds of up to 300 mm/s.
- Directly compatible with Nikon Ti and Ti2 microscopes and software, and NanoScan SP series piezo stages.
- Flat top design for ease of sample loading.

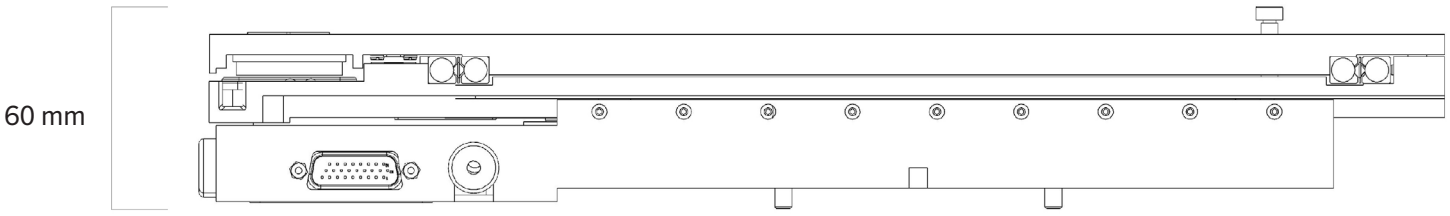
Applications

- Slide scanning
- Confocal and super-resolution microscopy
- Fluorescence microscopy

Dimensions



*Outer dotted line shows the maximum footprint of the stage when at the limits of travel.



Specifications

	HLD117NN
Travel range	120 mm x 80 mm
Unidirectional repeatability[1]	<0.4 µm
Bidirectional repeatability[1]	<0.5 µm
Metric accuracy[1]	0.07 µm/mm
Full travel metric accuracy	<5.7 µm
Resolution[2]	0.05 µm
Squareness[1]	<20 arcsec
Maximum velocity[3]	300 mm/s
Maximum load	6 kg
Encoders	0.05 µm encoders
Motor type	High precision linear DC servo
Weight	7 kg

All specifications correct when using a ProScan III controller with Intelligent Scanning Technology enabled.

1. As per Prior Scientific's test methodology, typical value.
2. Defined as the minimum motor step resolution for non-encoded stages, defined as the encoder resolution for encoded stages.
3. At maximum velocity setting when using a ProScan III controller. Actual maximum speed it dependent on sample mass and acceleration settings.

Ordering Information

Part Number	Description
HLD117NN	Flat top ProScan® linear motor stage for Nikon inverted microscopes with travel range 121 x 81 mm, and 0.05 µm encoders.

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