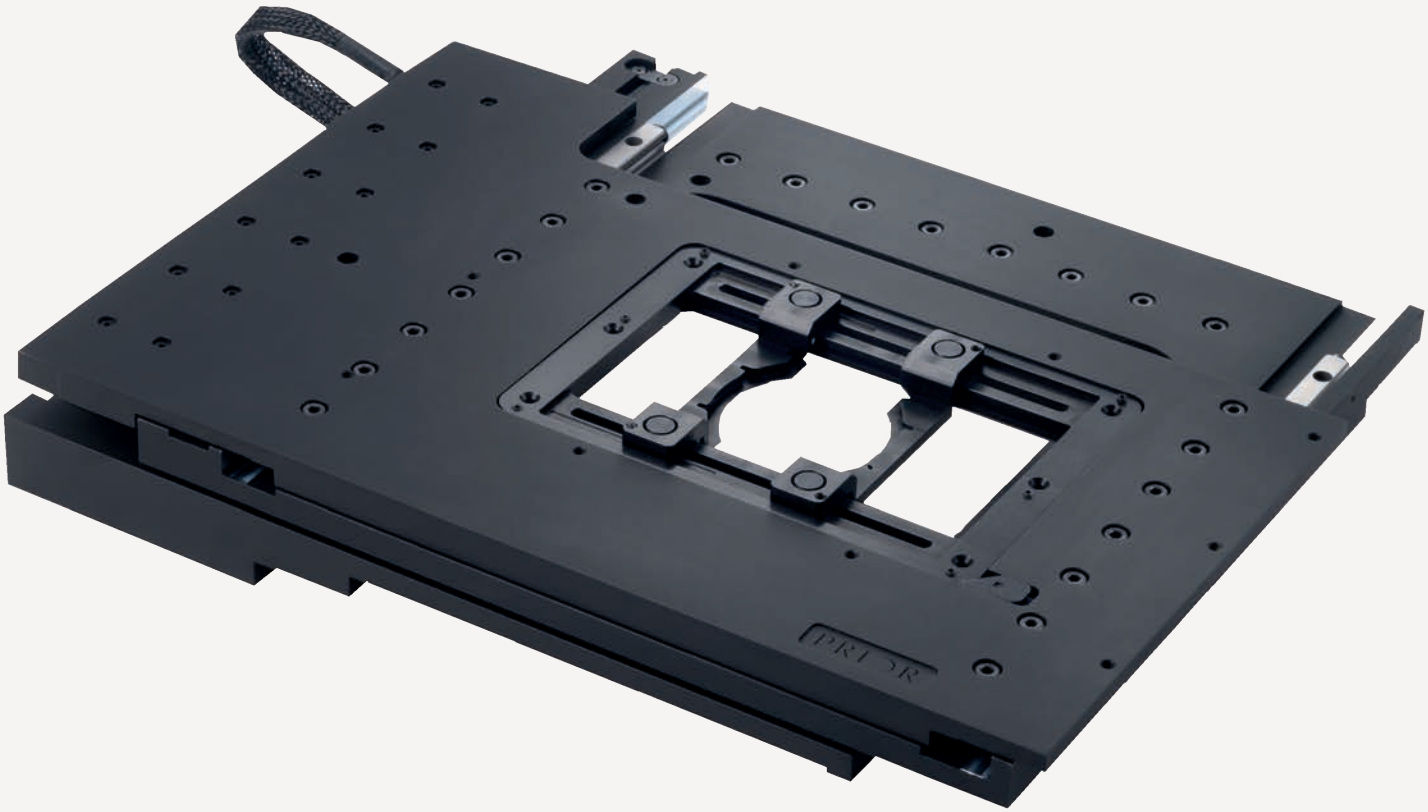
PRIOR PRECISION IN MOTION
Scientific

ProScan® Linear Stages
Motorised stages



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ProScan Linear Stages

Motorised stages

A new stage in imaging

The HLD117 is built for performance, efficiency and for obtaining the very best data possible; making the HLD117 ideal for both start/stop point to point imaging and for continuous motion and velocity controlled scanning applications. Combining the ProScan III controller, with its TTL I/O and triggering functions, with the HLD117 motorised stage provides constant speeds with extremely low velocity ripple, allowing for perfect synchronisation between automation and imaging software.

Fast and Precise

With a maximum speed of 300mm/sec, and a minimum speed of 1µm/sec, the HLD117 is suitable for a huge range of applications, substantially increasing the speed, and accuracy, of data collection. Acquisition from multiple points can be done at highly rapid speeds; a 96 well plate can now be scanned within 15 seconds. Precision is not sacrificed for speed however, with 0.15µm repeatability and optional 10 nm resolution available. With the addition of the Nanopositioning Piezo Z stage, offering precise focussing for high end applications, three dimensional data can be collected at each point.

Integrate and Combine

By integrating the HLD117 stage, Prior's LED or metal halide light sources, the PLW20 Well Plate Loader, the ProScan III controller, your microscope and imaging software into a single automated system, you gain the resolution, precision and speed needed for the acquisition of detailed, high quality images. Little to no software modifications are required to integrate the HLD117 stage into existing applications, as this stage responds to the same command set as Prior's previous stages. A comprehensive software development kit is provided with the stage that allows incorporation of the HLD117 into 3rd party software packages.

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ProScan Linear Stages

Motorised stages

Compatible Accessories

Prior produces a wide range of accessories to allow the creation of a microscope system tailored to your exact requirements.

High Speed Filter Wheel and Shutters

The high speed filter wheel system delivers smooth operation and changes filter position in as little as 55ms.

Focus Options

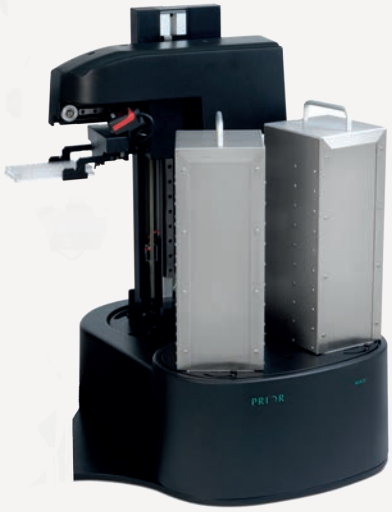
Stepper Z stages, Piezo Z stages and rotary stepper focus drives are available from Prior to allow precise focussing, gaining the very best data.

LED and Metal Halide Illumination Systems

Prior offers a range of LED illumination for brightfield and flourescence microscopy, as well as metal halide illumination systems. All systems are long lasting and designed to give long lasting, high quality lighting for obtaining the best possible images.

Well Plate Loading Systems

Prior's PLW20 Well Plate Loading System is compatible with the ProScan system and with most major inverted microscopes. The PLW20 features a 20 well plate capacity in stainless steel racks for easy cleaning.
Compatible with covered and uncovered well plates, the system fits all standard microtitre plates up to 19mm thick.



Branded, Special and OEM systems

Prior Scientific controls the design and manufacturing process for all of our automated microscope products. From branded products to entirely unique solutions, Prior has the tools to provide for your needs. From concept to finished product, Prior can design and supply high quality OEM solutions.

PRIOR PRECISION IN MOTION
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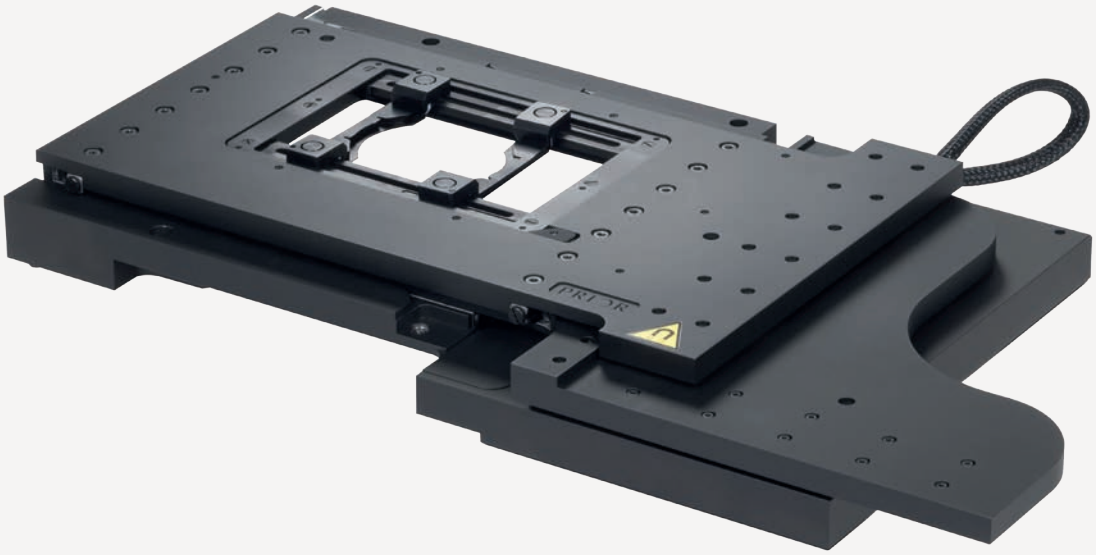
HLD117DM

High Precision Stage with Linear Motor Technology for Lecia DMI Microscopes

Offering a new level of precision in microscope automation, the HLD117DM is a motorised stage for the Leica DMI microscopes, suitable for a wide range of applications.

- Superb repeatability - 0.15 µm
- Excellent accuracy - 0.045 µm per mm of travel.
- Fast scanning speeds up to 300 mm/sec
- A minimum speed of 1µm/sec allows extremely slow scanning applications to be undertaken
- Flat top design allows for plenty of space on the stage
- Ultra-quiet operation and extremely smooth movements reduce vibrations transmitted to the sample
- Integrated 50 nanometer encoders are standard, adding an extra level of reliability and precision
- Compatible with Prior Nanoscan Piezo Z stages, ensuring greater accuracy when focussing
- A fixed stage cable eliminates cable drag improving performance
- Controllable with the ProScan system, allowing integration into a whole microscope automation system
- Compatible with most imaging software
- Range of standard sample holders; suitable for a wide array of uses



PRIOR PRECISION IN MOTION
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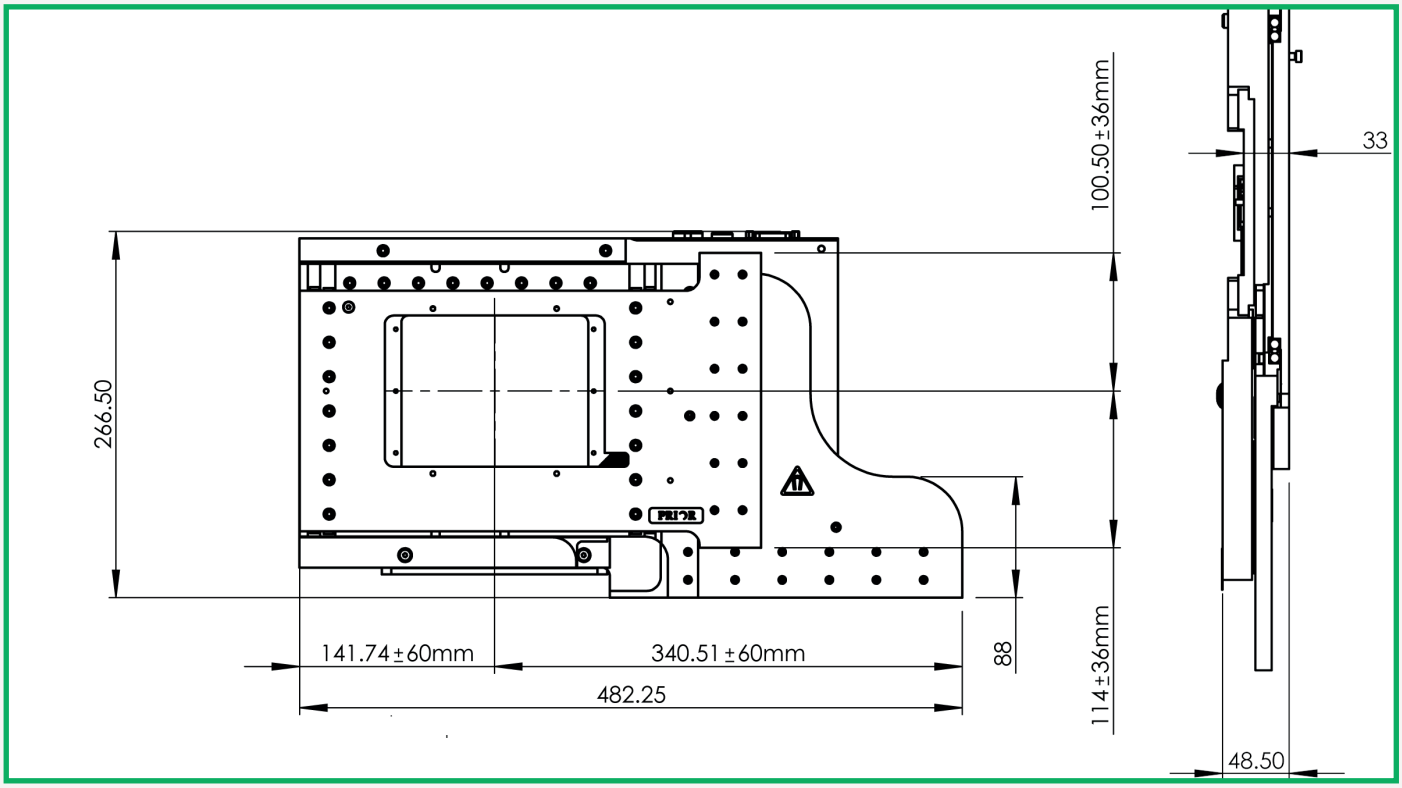
HLD117DM

High Precision Stage with Linear Motor Technology for Leica DMI Microscopes



Products available

Part number	Description
VLD31XYZ	ProScan III HLD Linear motor controller
HLD117DM	Prior linear motor stage for Leica DMI microscope
PS3J100	ProScan III Joystick

Specifications

Performance	HLD117DM
XY Repeatability*	0.15 µm
Minimum Step Size	0.05 µm
Minimum Speed**	1 um/s
Maximum Speed**	300 mm/s
Average Metric Accuracy	0.045 um per mm of travel
Maximum Travel Range	120 x 72 mm
Maximum Load	6 kg
Squareness	20 arc sec
Weight	7 kg
Motor Type	High Precision Linear DC Servo
Linear Slides	Precision 3 mm crossed roller way
Limit Switches	X and Y standard
Encoders	50 nm as standard

Requires the use of a Prior ProScan III or above controller and are based on Prior method of testing.

*Mean value

**Based on performance with IST enabled and measured over full travel of the stage.

PRIOR PRECISION IN MOTION
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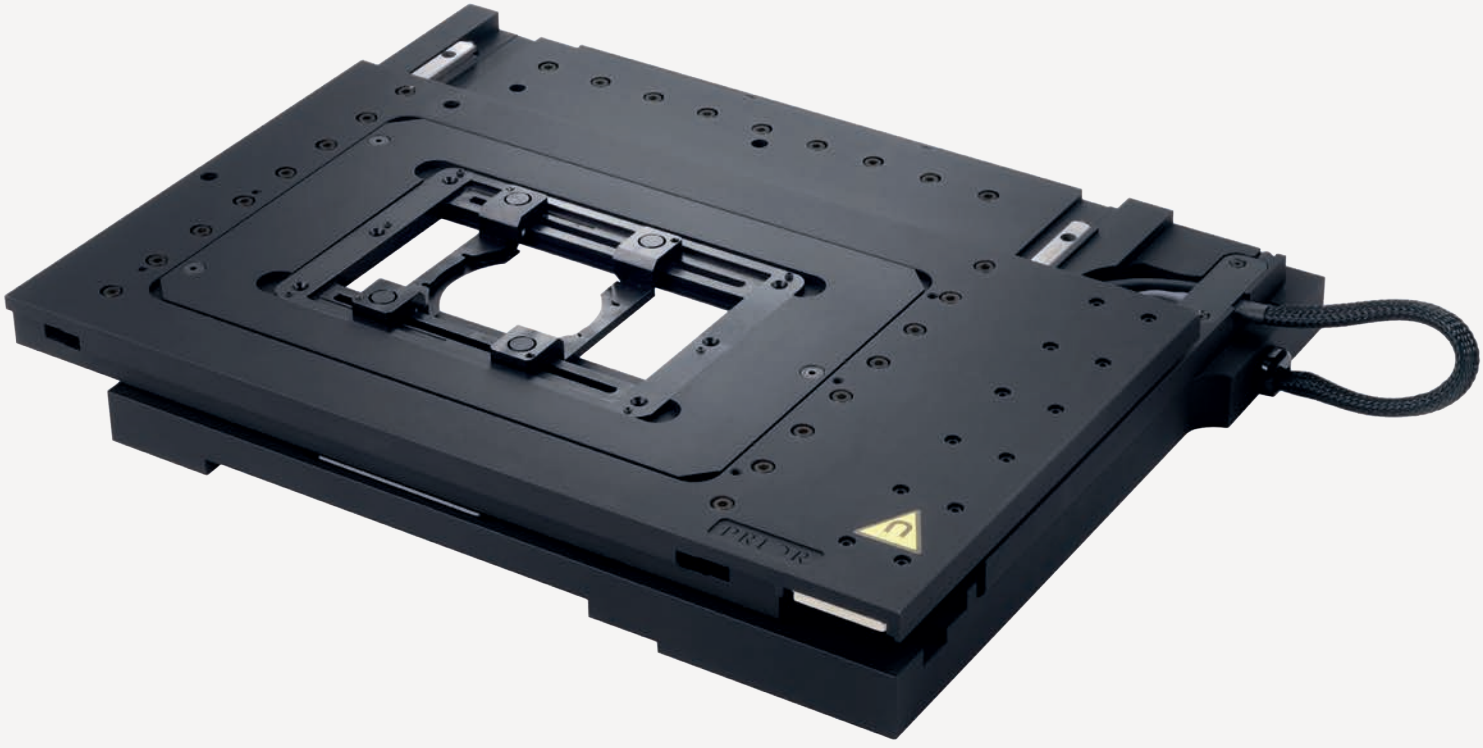
HLD117NN

High Precision Stage with Linear Motor Technology for Nikon Ti Microscopes

Offering a new level of precision in microscope automation, the HLD117NN is a motorised stage for the Nikon Ti microscopes, suitable for a wide range of applications.

- Superb repeatability - 0.15 µm - and excellent accuracy - 0.045 µm per mm of travel.
- Scanning speeds up to 300 mm/sec and as low as 1µm/sec - suitable for a vast range of applications
- Flat top design allows for plenty of space on the stage
- Ultra-quiet operation and extremely smooth movements reduce vibrations transmitted to the sample
- Integrated 50 nanometer encoders are standard, adding an extra level of reliability and precision
- Compatible with Prior Nanoscan Piezo Z stages, ensuring greater accuracy when focussing
- Compatible with Prior PLW20 Well Plate Loader; allowing rapid loading of samples. Sample holder area is the Nikon standard (238 mm x 157 mm).
- An adapter is available to allow compatibility with Prior's extensive range of sample holders
- A fixed stage cable eliminates cable drag improving performance
- Controllable with the ProScan system, allowing integration into a whole microscope automation system.
- Compatible with most imaging software and integrates seamlessly with Nikon Elements



PRIOR PRECISION IN MOTION
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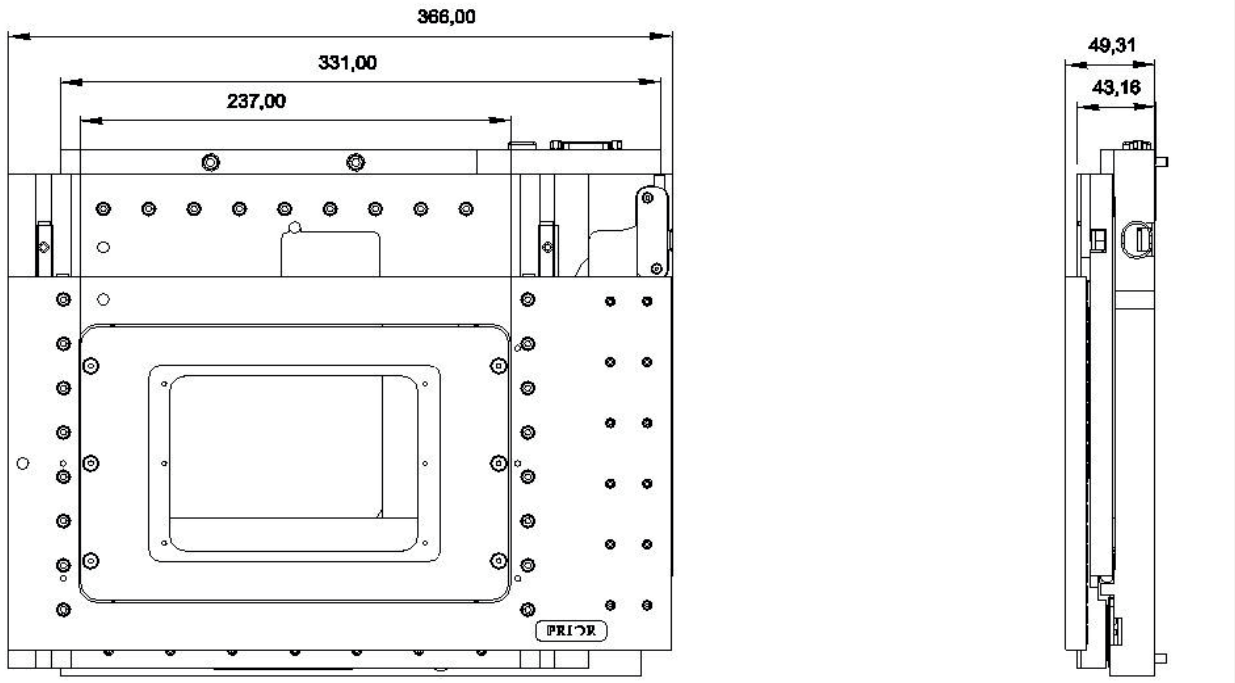
HLD117NN

High Precision Stage with Linear Motor Technology for Nikon Ti Microscopes



Products available

Part number	Description
VLD31XYZ	ProScan III HLD Linear motor controller
HLD117NN	Prior linear motor stage for Nikon Ti microscopes
PS3J100	ProScan III Joystick
HLD324	Adapter for Prior standard sample inserts

Specifications

Performance	HLD117NN
XY Repeatability*	0.15 µm
Minimum Step Size	0.05 µm
Minimum Speed**	1 um/s
Maximum Speed**	300 mm/s
Average Metric Accuracy	0.045 um per mm of travel
Maximum Travel Range	120 x 80 mm
Maximum Load	6 kg
Squareness	20 arc sec
Weight	7 kg
Motor Type	High Precision Linear DC Servo
Linear Slides	Precision 3 mm crossed roller way
Limit Switches	X and Y standard
Encoders	50 nm as standard

Requires the use of a Prior ProScan III or above controller and are based on Prior method of testing.

*Mean value

**Based on performance with IST enabled and measured over full travel of the stage.

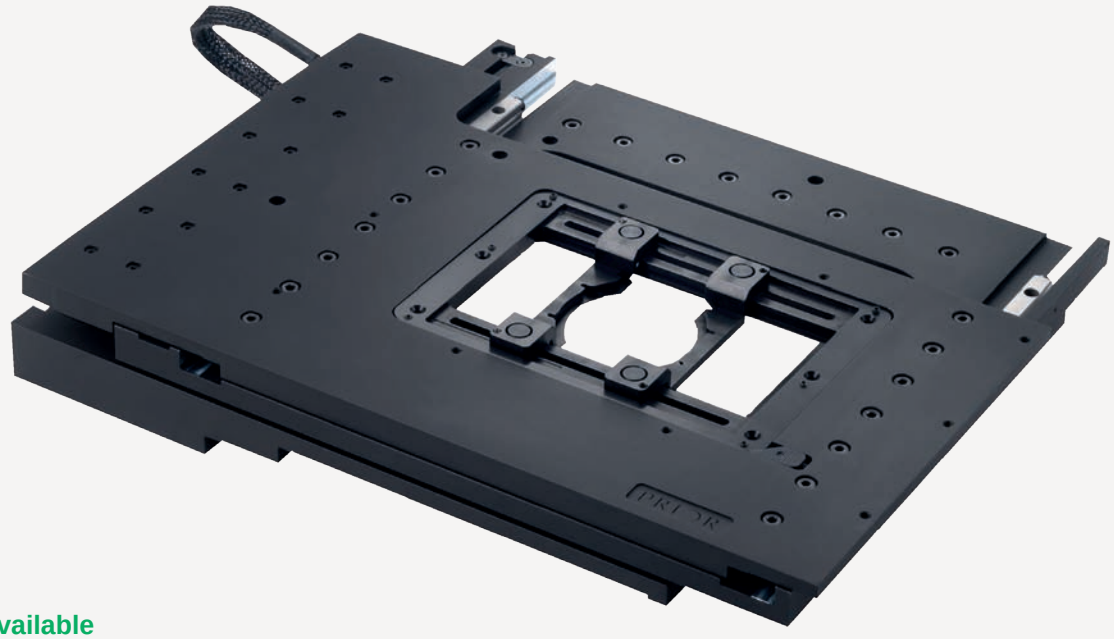
PRIOR PRECISION IN MOTION
Scientific

HLD117IX

High Precision Stage with Linear Motor Technology for Olympus IX3 Microscopes

Offering a new level of precision in microscope automation, the HLD117IX is a motorised stage for the Olympus IX3 microscopes, suitable for a wide range of applications.

- Superb repeatability - 0.15 µm
- Excellent accuracy - 0.045 µm per mm of travel.
- Fast scanning speeds up to 300 mm/sec
- A minimum speed of 1µm/sec allows extremely slow scanning applications to be undertaken
- Flat top design allows for plenty of space on the stage
- Ultra-quiet operation and extremely smooth movements reduce vibrations transmitted to the sample
- Integrated 50 nanometer encoders are standard, adding an extra level of reliability and precision
- Compatible with Prior Nanoscan Piezo Z stages, ensuring greater accuracy when focussing
- A fixed stage cable eliminates cable drag improving performance
- Controllable with the ProScan system, allowing integration into a whole microscope automation system
- Integrates with cellSens software
- Compatible with most imaging software
- Range of standard sample holders; suitable for a wide array of uses



Products available

Part number	Description
VLD31XYZ	ProScan III LD Linear motor controller
HLD117IX	Prior linear motor stage for Olympus IX3 microscope
PS3J100	ProScan III Joystick

PRIOR PRECISION IN MOTION
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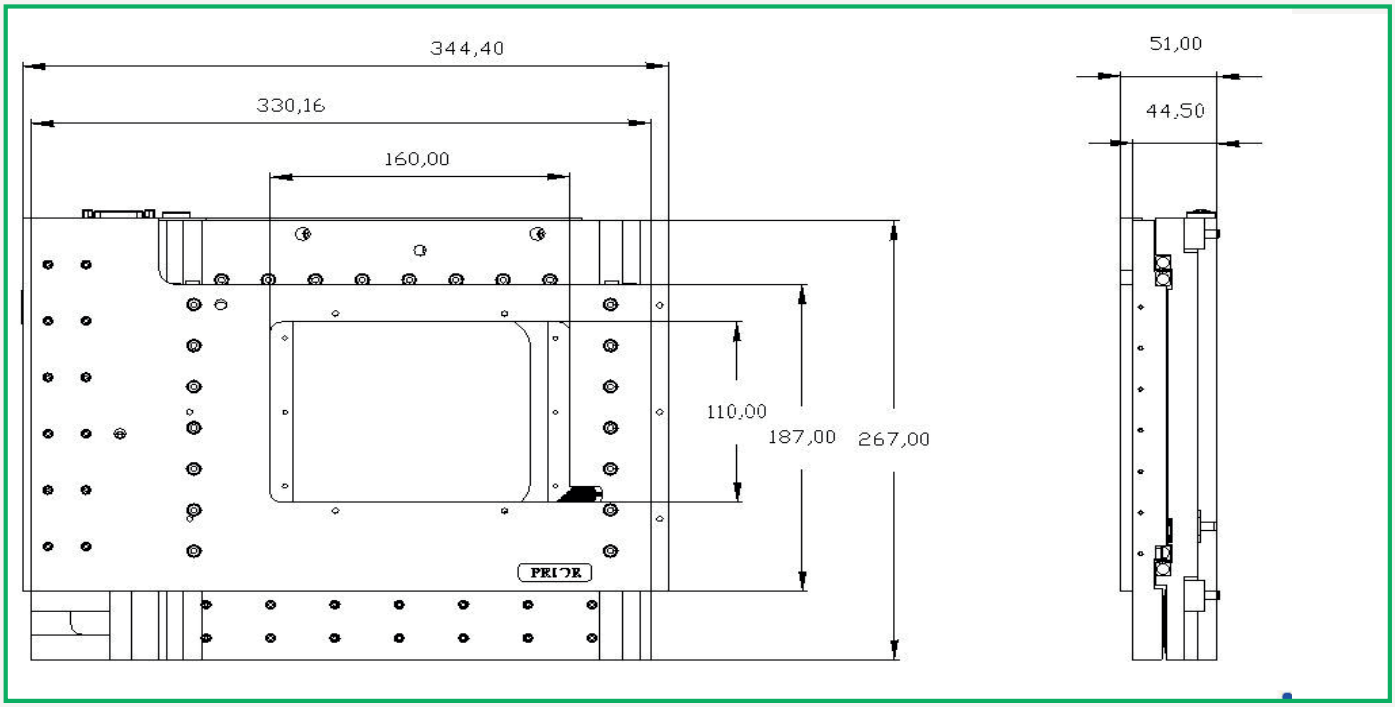
HLD117IX

High Precision Stage with Linear Motor Technology for Olympus IX3 Microscopes



Specifications

Performance	HLD117IX
XY Repeatability*	0.15 µm
Minimum Step Size	0.05 µm
Minimum Speed**	1 um/s
Maximum Speed**	300 mm/s
Average Metric Accuracy	0.045 um per mm of travel
Maximum Travel Range	120 x 80 mm
Maximum Load	6 kg
Squareness	20 arc sec
Weight	7 kg
Motor Type	High Precision Linear DC Servo
Linear Slides	Precision 3 mm crossed roller way
Limit Switches	X and Y standard
Stage Profile	32.5 mm (approximately)
Encoders	50 nm as standard

Requires the use of a Prior ProScan III or above controller and are based on Prior method of testing.

*Mean value

**Based on performance with IST enabled and measured over full travel of the stage.

PRIOR Scientific

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FM 61600

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