

# Fast Focusing Linear Slide has Nanometer Precision, High Dynamics and Maintenance-free Voice Coil Motor



New long-travel addition to PI's large range of nanopositioning slides for fast focusing tasks in semiconductor metrology, microscopy, life sciences, and slide scanning applications.

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PI extends its large offering of nanometer precise, fast focusing stages with the addition of its new V-308 nanopositioning slide for vertical applications providing 7mm of Z-travel and 10nm incremental motion – ideal for OEM and research applications in the life science, semiconductor and material science fields. The novel design combines long travel with unmatched dynamics and precision with 8m/s<sup>2</sup> acceleration and 25nm bidirectional repeatability.

## Closed-Loop Linear Slide Design with Voice-Coil Motor

The closed-loop linear slide uses an optical position sensor with sub nanometer resolution and a voice coil linear motor to allow vertical (or horizontal) travel up to 7mm with a velocity up to 200mm/sec (8"/sec) for fast accurate scanning. Guided by low friction cross-roller bearings, this low-profile linear slide delivers long lasting performance in high duty cycle industrial applications. Ease-of-use is built in with a user-adjustable counterbalance, (e.g. for heavy, large NA microscope objective lenses up to 1kg in vertical applications) and hard stop adjustability to limit the travel range.

[How Fast Nano-Focusing and Z-Scanning Mechanisms Advance Life Sciences, Biotech, Laser Processing, and Semiconductors»](#)

[Specifications, Datasheet of the V-308 Nano-Focus Stage»](#)

[More Information»](#)

[Video: Fast Focus Stage»](#)

## Working with You

PI's in-house engineered solutions have enabled customers around the world to increase their productivity and technological advantage for 5 decades. With a large basis of proven motion technologies and methodologies, PI is in the position to quickly modify existing designs or provide a fully customized OEM solution to fit the exact requirements of your application from sensors and piezo transducers to microscope nano-focus units, fast photonics alignment systems to multi-axis automation sub-systems.



Fast nano-focus scanning positioner provides application solutions for life sciences, biotech, laser processing, and semiconductors.

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### NEW FAST NANO-FOCUS SCANNER, V-308

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#### About PI

PI is a privately held company that designs and manufactures world-class precision motion and automation systems including air bearings, hexapods and piezo drives at locations in North America, Europe, and Asia. The company was founded 5 decades ago and today employs more than 1300 people worldwide. PI's customers are leaders in high-tech industries and research institutes in fields such as photonics, life-sciences, semiconductors, and aerospace.

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