



High Load Linear Stage Family: L-417 & V-417

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PI PRESS RELEASE

For Industrial Use: New High Performance High Load Linear Stages Family, Ballscrew/Linear Motor Options

Compared to the competition, these PI-engineered stages offer higher load capacity, allowing for higher dynamics, often required by industrial applications.

May 2018, Auburn, MA – The new reference-class linear stages family, L-417 and V-417, from precision nanopositioning global leader PI (Physik Instrumente), are available in ballscrew and linear motor configurations, both cost effective designs, offering high resolution with improved tracking performance, smaller tracking error, and improved settling time. Applications for both include high demands on dynamics, precision, smooth scan motion, short settling times, and low tracking error, such as laser cutting, scanning, digital printing, electronics assembly and inspection, AOI (Automatic Optical Inspection), automation, and flat panel manufacturing.

The L-417 precision heavy duty ball screw model easily accommodates a load capacity of 450N on its 166mm width frame with a travel up to 813mm. With a synchronous servo motor, it uses rotary and linear encoders, and can be re-lubricated without disassembly, further extending its high reliability and long lifetime. A cover strip on the side and the purge air connection prevent contamination of the working components by particles. An optional holding brake allows an increase in its usability as a Z axis stage.

With a similar load capacity, width and travel range, the V-417 is powered by an ironless linear motor, and precision linear encoder. The 3-phase magnetic direct drive transmits a drive force of 87N to the motion platform directly, without friction. This smooth running at high and low velocities mean no vibration and easy position control. Also like its ball screw family member, the V-417 has a cover strip on the side and the purge air connection prevents contamination of the working components by particles.

Watch Video, *Advanced Precision Motorized Positioning Stages for Industrial Laser Micro-Machining*

<https://www.youtube.com/embed/5RtvAQetpXo?rel=0>

Specifications, Datasheets, More Information

L-417

http://www.pi-usa.us/products/precision_positioning_pi-micos/Linear_Precision_Positioning_Stages_Mc.php#L417

V-417

http://www.pi-usa.us/products/precision_positioning_pi-micos/Linear_Precision_Positioning_Stages_Mc.php#V417

Standard and Custom

PI has in-house engineered solutions with over 4 decades of experience working with customers to provide products that meet application demands, and can quickly modify existing product designs or provide a fully customized OEM part to fit the exact requirements of the application.

About PI

PI is a leading manufacturer of air bearing stages, piezoelectric solutions, precision motion control equipment, and hexapod parallel-kinematics for semiconductor applications, photonics, bio-nano-technology, and medical engineering. PI has been developing and manufacturing standard & custom precision products with piezoceramic and electromagnetic drives for 4 decades. The company has been ISO 9001 certified since 1994 and provides innovative, high-quality solutions for OEM and research. The PI group employs more than 1,000 people worldwide in 15 subsidiaries and R&D / engineering centers on 3 continents.

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