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PI PRESS RELEASE

Medium Load Hexapod 6-Axis Motion Platform Introduced by PI

New 30kg-class hexapod added to family of 6-axis parallel positioning systems providing precision and versatility for loads from 2kg to 1,000+ kg.

November 2017, Auburn, MA – With the usability of 6-axis hexapods increasing in research and industry applications, PI introduces a new medium load 6-axis precision motion platform, the H-825 hexapod. The H-825 provides a self-locking load capacity up to 30 kg (66lbs). The motion range is up to 55mm (linear) and up to 38 degrees (rotation). High system precision is guaranteed by absolute encoders and an actuator resolution of 8 nanometers – with excellent position repeatability of $\pm 0.1\mu\text{m}$ and $\pm 2\mu\text{rad}$, respectively.

Parallel-kinematic Design

The parallel-kinematic design of the hexapod makes it smaller and stiffer than traditional 6 axis positioning systems while providing a higher dynamic range. The parallel kinematic design (all actuators working in parallel on one moving platform) does away with issues caused by moving cables – a decisive advantage in terms of reduced friction and reliability.

Long Life Motors and Absolute Encoders for Reliability and Efficiency

The brushless servo motors employed in all 6 hexapod struts provide the long lifetime required in industrial precision positioning and alignment applications. The new hexapod also features absolute measuring position encoders, eliminating the need for referencing the system during power up. Absolute encoders also ensure that any operation can be continued seamlessly in case of a power interruption.

Controller / Software

PI hexapods come with state-of-the-art controllers and software tools based on 25 years of hexapod R&D, resulting in fast solution implementation to a plethora of applications from medical to photonics. All 6 axes can be commanded simply as Cartesian coordinates, and the center of rotation can be changed on the fly with a software command.

Read technical articles and applications of PI hexapods

<http://www.pi-usa.us/blog/category/hexapods/>

Watch Hexapod System Videos

<http://www.pi-usa.us/products/Motion-Positioning-Videos/index.php#HEX>

Specifications, Datasheet, More Information

http://www.pi-usa.us/products/Micropositioning_Stage_Hexapod/hexapod-6-axis-stage.php#H825

Standard and Custom

PI has over 4 decades of experience providing in-house engineered precision motion control solutions, and can quickly modify existing product designs or provide a fully customized OEM part to fit the exact requirements of the customer's application.

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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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