PIHera XY Piezo Stages: Compact Positioning Systems for Ultra-Precise Motion and Stable Long-Term Performance

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The semiconductor, photonics, and microscopy industries require reliable and powerful solutions for precise positioning tasks with exact alignment in the nanometer range. PIHera XY piezo stages of Physik Instrumente (PI) combine ****subnanometer resolution**** with high stability and flexible travel ranges in the smallest spaces. Selected versions are available with short lead times, including the corresponding controllers.

The piezoceramic actuator is the heart and drive of the PIHera XY stages. PI relies on PICMA® multilayer actuators manufactured in-house. These actuators are characterized by high reliability and a long lifetime, as their all-ceramic insulation protects them against humidity.

Ultraprecise Positioning Accuracy

Positioning in the subnanometer range with high repeatability and optimum stability is based on high-quality capacitive sensors. High guidance accuracy is achieved with backlash-free flexure guides.

**Flexible in Use and Quickly Available**

The XY piezo stages P-621.2CD, P-622.2CD, P-625.2CD, and P-628.2CD provide travel ranges of 120 µm to 1000 µm and thus enable a wide range of applications. In the semiconductor and photonics industries, for example, they are used for interferometry to align laser systems or optical components, or for wafer inspection. The XY stages are also widely used in microscopy to position and stabilize samples and objects with nanometer precision.

Short lead times allow for the efficient execution of time-critical projects.



*PIHera XY stages with variable travel ranges for nanometer-precise positioning and alignment*

Physik Instrumente (PI) in Brief

PI with headquarters in Karlsruhe, Germany, is the market and technology leader for high-precision positioning technology and piezo applications in the market segments of Industrial Automation, Photonics, Semiconductor, and Microscopy & Life Sciences. Working closely with customers around the world, PI’s more than 1,700 specialists have been continuously pushing the boundaries of what is technically feasible for more than fifty years. Various drive technologies, internally developed sensor technology, electronics, and control technology provide the basis for this. PI’s portfolio ranges from components to subsystems to tailor-made complete solutions. More than 560 granted and pending patents underline the company’s claim to leadership in the fields of precision positioning and piezo technology. PI operates on a global scale, with nine production sites in Europe, North America, and Asia, as well as sixteen sales and service subsidiaries.

For more information, contact:

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