INTRODUCING PARKER ZFA SERIES

Advanced Optomechanical Focusing Nano Positioner for Precision Applications

August 2024 — Parker Hannifin Corporation, a global leader in motion and control technologies, proudly announces the launch of the ZFA Series, a groundbreaking Optomechanical Focusing Nano Positioner. Engineered to deliver industry-leading settling time and stability, the ZFA Series is designed to meet the exacting demands of instrument builders across a range of fields, including electronics manufacturing, life sciences, semiconductor metrology, and dynamic imaging applications.

Unmatched Precision and Stability

The ZFA Series is a state-of-the-art nano positioner that offers unprecedented nanometer-level stability, allowing for precise positioning and rapid step-and-settle responses. This high-performance positioner is ideal for applications requiring ultra-low settling times and high standstill stability, making it perfect for improving image quality and throughput in digital pathology, Next-Generation Sequencing, and other dynamic imaging environments.

Key Features and Benefits:

Compact Design: With a form factor of 95 x 90 x 36 mm, the ZFA Series is compact yet robust, fitting seamlessly into a wide range of instruments.

High Load Capacity: The ZFA Series supports up to 1 kg of objective mass with its internal magnetic counterbalance, and up to 2 kg with an optional external counterbalance, enabling the use of larger objective lenses to increase the field of view.

Advanced Motion Control: The positioner is equipped with a high dynamic voice coil drive and precision cross-roller guidance, ensuring smooth, accurate motion with zero wear over time.

Superior Encoder Technology: The ZFA features highresolution linear encoders, available in incremental and analog options, providing nanometer-level resolution and exceptional positional accuracy.

Ease of Integration: Designed with integral carriage and base datum features, the ZFA Series allows for easy alignment and integration into new or existing instruments. Optional factory aligned objective brackets allow for seamless integration and instrument assembly.







Applications and Industries

The ZFA Series is optimized for applications that demand the highest precision and reliability. In life sciences, it enhances the performance of imaging systems by reducing cycle times and improving image resolution. In semiconductor metrology, the ZFA Series delivers the stability and accuracy required for critical measurement tasks. Additionally, its non-contact voice coil drivetrain ensures consistent performance throughout the life of the instrument, reducing maintenance costs and total cost of ownership.

Compliance and Customization

The ZFA Series is fully compliant with CE and RoHS directives, ensuring it meets international standards for safety and environmental sustainability. Moreover, Parker offers customizable objective brackets and external counterbalance options to meet specific application requirements.

Availability

The Parker ZFA Series Optomechanical Focusing Nano Positioner is now available for order. For more information, technical specifications, or to request a quote, please visit our <u>ZFA Series Page</u> or contact your local Parker representative.

About Parker Hannifin

Parker Hannifin is a Fortune 250 global leader in motion and control technologies. For over a century, the company has engineered the success of its customers in a wide range of diversified industrial and aerospace markets. Learn more at www.parker.com.

Contact:

Parker Hannifin Corporation

Electronic Motion and Controls Division

Phone: 800-358-9070

Email: emn.service@support.parker.com

Website: www.parker.com/emc

