

PRESS INFORMATION

Flexible Linear Axis for Semiconductor, Electronics, and Mechanical Engineering Applications

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Compact, dynamic, and high-precision: Bosch Rexroth expands its precision module series for broader applications

- High rigidity, precision, and dynamics in minimal installation space
- New sealing strip option for laser cutting and particle-intensive environments
- Simple, digital engineering with extensive configuration options



The compact precision modules PSK from Bosch Rexroth set new benchmarks in semiconductor and electronics manufacturing, as well as mechanical engineering, by minimizing cycle times and ensuring consistent production quality. (Image source: Bosch Rexroth AG)

Bosch Rexroth has now expanded the PSK series for semiconductor and electronics manufacturing with a new variant featuring a sealing strip. This enhancement enables highly dynamic handling and positioning processes in the smallest spaces - even for less clean manufacturing processes such as laser cutting. With three sizes, a flexible lubrication concept, and multiple configuration options, the precision modules PSK are more versatile than ever. Digital engineering tools and straightforward assembly also help accelerate time-to-market.

The demands on linear axes for precision, dynamics, and power density continue to grow across industries. The ready-to-install PSK precision modules simplify integration and deliver reliable, high-performance results.

Built on a rigid precision steel profile with integrated guide tracks, the modules achieve high planar moments of inertia within a compact footprint. The result: precise, dynamic movement, feeding, and lifting of components, as well as exact positioning of tools or cameras for optical inspection.

With the new sealing strip, the PSK series is now suitable for environments with particle emissions. For example, in laser cutting, the enclosed system ensures precise Z-axis height adjustment of the laser head, while reliably separating machining from motion processes. Further options include magnetic sensors that can be adjusted throughout the travel range, and various lubrication solutions. In addition to basic greasing, a preserved version for individual greases is also available. Different motor mounting variants can also be selected – including a belt side drive for Rexroth motors or other NEMA-compatible servo and stepping motors.

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The LinSelect e-tool makes selection and sizing quick and convenient. Following online configuration of both the module and the drive technology, the individual solution is available to order directly in the Rexroth shop. The documentation and CAD data can be downloaded straight away. The variant ordered can then be ordered again using the unique material number without having to repeat the configuration process.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 32,600 associates generated sales revenue of 6.5 billion euros in 2024.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 418,000 associates worldwide (as of December 31, 2024). The company generated sales of 90.3 billion euros in 2024. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 490 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 87,000 associates in research and development.

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