

NexBot Drives

STP113-002 Stepper Motor

NexBot
Robotics

SKU: NXB-SRV-STP113-002 | Category: Drive Systems > Servo Motors > Stepper Motors

Overview

The NexBot Drives STP113-002 is a high-performance stepper motor engineered for demanding industrial automation and robotics applications requiring precise, repeatable positioning. This motor provides a robust solution for tasks where accuracy and reliability are critical, serving as a core component in custom end-of-arm tooling, auxiliary axes, and automated positioning systems. Key Features and Benefits: The standout feature of the STP113-002 is its high holding torque of 4.5 Nm, which ensures the motor can hold a load steady against external forces without power, a critical requirement for safety and process integrity. Its standard 1.8° step angle (200 steps per revolution) allows for fine positional control, translating into smoother and more accurate movements for your robotic system. The motor's design emphasizes low vibration and reduced resonance, which contributes to quieter operation and extends the mechanical life of the entire system by minimizing wear. Industrial Applications: This stepper motor is well-suited for a variety of robotic applications, including automated material handling, precise part orientation for assembly, driving conveyor systems, and positioning inspection equipment. It is frequently integrated with NexBot C-series and S-series robots to operate custom grippers, rotary indexers, or other peripheral devices that augment the robot's primary functions. The motor's torque and precision are ideal for pick-and-place operations where consistent component placement is essential for quality control. Construction and Installation: Built with a rugged anodized aluminum body, the STP113-002 is designed to withstand typical industrial environments and dissipate heat effectively. It features a standard NEMA 34 mounting flange, ensuring straightforward mechanical integration with existing designs and hardware. The motor operates on a flexible 24-48VDC power supply, making it compatible with common industrial power systems. Electrical connection is facilitated through an integrated connector for reliability and ease of maintenance.

Technical Specifications

Parameter	Value	Unit
Weight	2.5	kg

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Material	Anodized Aluminum	
Voltage	24-48VDC	
IP Rating	IP54	
Country of Origin	KR	
Dimensions	86 x 86 x 118 mm	
Torque	4.5 Nm	

Safety Notice: This product must be installed and operated by qualified personnel in accordance with applicable safety standards (ISO 10218, IEC 61508).