

NexBot Drives

MD132-002 Multi-Axis Servo Drive

**NexBot
Robotics**

SKU: NXB-SRV-MD132-002 | Category: Drive Systems > Servo Drives > Multi-Axis Servo Drives

Overview

The NexBot Drives MD132-002 is a high-performance, dual-axis servo drive designed to provide precise, dynamic control for multi-axis robotic systems. This drive integrates two independent drive channels into a single compact housing, significantly reducing cabinet space requirements and simplifying system wiring. Its primary use is in applications demanding synchronized, high-speed motion, such as coordinated path following, pick-and-place operations, and automated assembly. Key features include an integrated EtherCAT interface, which enables real-time communication with cycle times as low as 125 μ s. This high-speed bus communication is critical for achieving the low latency and high determinism required for complex, interpolated movements in modern robotics. The MD132-002 supports a wide input voltage range up to 480VAC, making it compatible with standard industrial power systems globally. Each axis can deliver a continuous current of up to 12A, with a peak current capability of 25A to handle high acceleration and deceleration phases without compromising performance. Engineered for reliability, the drive incorporates advanced safety features, including Safe Torque Off (STO) functionality compliant with SIL 3 / PLe standards. This allows for safe machine states without removing power from the drive, enabling faster restarts. The drive's sophisticated control algorithms support advanced tuning and filtering, minimizing vibrations and improving settling times. This results in smoother motion profiles and higher overall machine throughput. Typical applications for the MD132-002 servo drive include powering the primary axes of SCARA robots, controlling wrist or auxiliary axes on larger articulated robots, or driving gantries and transfer systems. Installation is streamlined through a book-style form factor and front-facing connectors, allowing for high-density mounting within control cabinets. The drive is configured using the NexBot DriveSuite software, which provides intuitive tools for setup, tuning, and diagnostics.

Technical Specifications

Parameter	Value	Unit
Weight	5.2	kg

Parameter	Value	Unit
Material	Anodized Aluminum Housing	
Voltage	400-480VAC 3-Phase	
IP Rating	IP20	
Country of Origin	CH	
Protocol	EtherCAT	
Dimensions	255 x 85 x 180 mm	
Torque	2 Nm	

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