

NexBot Robotics

MD132-001 Multi-Axis Servo Drive 400V

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Robotics

SKU: NXB-SRV-MD132-001 | Category: Drive Systems > Servo Drives > Multi-Axis Servo Drives

Overview

The NexBot Robotics MD132-001 is a compact, high-performance multi-axis servo drive designed to provide precise, synchronized control for up to two servo motors in complex industrial robotics systems. This dual-axis drive consolidates the functionality of two independent drives into a single, space-saving unit, significantly reducing cabinet footprint, wiring complexity, and overall system cost. Engineered for dynamic performance, the MD132-001 servo drive supports a wide range of NexBot Robotics servo motors. Its core architecture is built around a powerful digital signal processor (DSP) that executes complex motion profiles with high fidelity. The drive features high-resolution feedback interfaces compatible with 24-bit absolute encoders, ensuring exceptional positioning accuracy and repeatability for tasks requiring micro-level precision. This capability is critical for applications like intricate assembly, semiconductor handling, and precision dispensing. Communication is handled via a built-in EtherCAT interface, a real-time industrial Ethernet protocol. The high bandwidth of EtherCAT also facilitates advanced diagnostics and real-time parameter adjustments, minimizing downtime and simplifying troubleshooting. The drive operates on a standard 400VAC three-phase supply, delivering a continuous output current of up to 5A per axis, making it suitable for a variety of medium-payload robotic applications. Safety is a primary design consideration. The MD132-001 integrates Safe Torque Off (STO) functionality certified to SIL3 and PLe standards. This safety feature allows the drive to be brought to a no-torque state without removing main power, enabling faster machine restarts after a safety event. Installation is streamlined through its book-style form factor and DIN rail mounting capability. Pluggable connectors for power, motor, and I/O signals simplify initial wiring and facilitate rapid component replacement during maintenance, maximizing machine uptime. The MD132-001 servo drive is an ideal solution for OEMs and system integrators looking to build compact, responsive, and reliable robotic automation systems.

Technical Specifications

Parameter	Value	Unit
Weight	2.5	kg

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Material	Anodized Aluminum	
Voltage	400VAC	
IP Rating	IP20	
Country of Origin	CH	
Protocol	EtherCAT	
Dimensions	220 x 75 x 180 mm	
Torque	1 Nm	

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