

NexBot Drives SD131-006

Single-Axis Servo Drive 6A

NexBot
Robotics

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Systems > Servo Drives > Single-Axis Servo Drives

Overview

The NexBot Drives SD131-006 is a compact, high-performance single-axis servo drive designed to deliver precise and dynamic motion control for demanding industrial automation applications. This drive is engineered to integrate seamlessly with a wide range of NexBot robotic systems, providing the power and responsiveness needed for tasks requiring high accuracy and repeatability. Engineered for reliability, the SD131-006 features a robust power stage capable of delivering 6A of continuous current, making it suitable for controlling axes in medium-payload robotic applications. Its advanced digital signal processing core enables sophisticated control algorithms, including auto-tuning and vibration suppression, which significantly reduce commissioning time and optimize machine performance. The drive's high-speed EtherCAT communication interface, with a cycle time down to 125 μ s, ensures tightly synchronized, real-time control, which is critical for coordinated multi-axis movements in applications such as automated welding, CNC machining, and high-speed pick-and-place. The drive operates on a 400VAC three-phase supply, aligning with common industrial power standards. Safety is a core design principle, and the SD131-006 includes an integrated Safe Torque Off (STO) function (SIL 3, PLe), allowing for the creation of safe machine designs without the need for external contactors. The compact, book-style housing is optimized for high-density cabinet installations, featuring DIN rail mounting and accessible terminals to simplify wiring and maintenance. This servo drive is an essential component for any system requiring dependable, high-fidelity motion control.

Technical Specifications

Parameter	Value	Unit
Weight	1.8	kg
Material	Anodized Aluminum	
Voltage	400VAC	
IP Rating	IP20	
Country of Origin	CH	
Protocol	EtherCAT	
Dimensions	170 x 55 x 165 mm	

Parameter	Value	Unit
Torque	6 Nm	

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