

# NexBot Robotics 213-010 8-Axis EtherCAT Motion Controller

NexBot  
Robotics

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## Overview

The NexBot Robotics 213-010 Motion Controller is an advanced control unit designed to orchestrate complex, multi-axis motion for industrial automation applications. This controller serves as the central processing hub for compatible NexBot robot arms, executing trajectory planning, kinematic calculations, and I/O logic with high precision and reliability. Its core function is to translate program commands into the precise, coordinated movements required for demanding tasks. The primary feature of the 213-010 is its capacity to manage up to 8 axes simultaneously, providing the flexibility to control a standard 6-axis articulated robot plus two external axes, such as a linear track or a workpiece positioner. This expanded capability allows for the creation of more sophisticated and efficient work cells. This high-speed communication is critical for applications requiring smooth, continuous-path motion, such as arc welding or sealing. Powered by a multi-core processor, the controller delivers the computational performance needed for real-time inverse kinematics and dynamic compensation, resulting in superior path accuracy and reduced cycle times. It is equipped with a comprehensive set of digital and analog I/O points for seamless integration with PLCs, safety systems, and other factory equipment. Typical applications include high-speed pick-and-place, complex assembly, material handling, and automated dispensing. The unit is designed for easy installation in a control cabinet via a standard DIN rail mount, and features front-panel status LEDs for rapid diagnostics during setup and maintenance.

## Technical Specifications

Parameter	Value	Unit
Weight	2.8	kg
Material	Anodized Aluminum	
Voltage	24VDC	
IP Rating	IP20	
Country of Origin	JP	
Protocol	EtherCAT	
Dimensions	220 x 150 x 55 mm	

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

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