NexBot Drives 211-014 Robot Main Controller

NexBot Robotics

SKU: NXB-GEN-211-014 | Category: Controllers & Software > Robot Controllers > Main Controllers

Overview

The NexBot Drives 211-014 is a centralized robot main controller engineered to manage all motion, logic, and safety functions for a wide range of NexBot industrial robots. This controller serves as the core processing unit for complex automation cells, executing robot programs and coordinating with peripheral equipment. At its heart is a powerful quad-core processor that enables rapid program execution and smooth, multi-axis path interpolation, which is critical for applications requiring high precision and speed, such as arc welding or laser cutting. This low-latency network ensures that the robot responds instantly to commands, improving overall system performance and accuracy. The 211-014 controller is designed for scalability and integration. It features a generous allocation of onboard digital and analog I/O points, which can be expanded with additional EtherCAT modules to support up to 512 digital I/O points. This flexibility allows for seamless integration of conveyors, vision systems, and PLCs. Integrated safety functions, including Safe Torque Off (STO), are built-in to simplify the design of safety-rated workcells. Typical applications include high-speed pick-and-place, complex assembly, material handling, and automated dispensing. The unit is housed in a rugged, powder-coated steel enclosure designed for DIN rail or panel mounting inside a standard industrial control cabinet. Installation is streamlined with standard terminal blocks and accessible communication ports, minimizing setup time and simplifying maintenance.

Technical Specifications

Parameter	Value	Unit
Weight	7.5	kg
Material	Powder-coated Steel	
Voltage	24VDC	
IP Rating	IP20	
Country of Origin	JP	
Protocol	EtherCAT	
Dimensions	450 x 300 x 150 mm	

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