

NexBot Robotics

MA012-001 6-Axis Robot Arm 25kg Payload

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Robotics**

SKU: NXB-ROB-MA012-001 | Category: Robots
> Articulated Robots > Medium Articulated
(10-50kg)

Overview

The NexBot Robotics MA012-001 is a high-performance 6-axis articulated robot arm designed to automate medium-payload applications with exceptional precision and reliability. This versatile robot provides an ideal balance of speed, strength, and a generous work envelope, making it a core component for enhancing productivity and consistency in demanding manufacturing environments. Engineered for durability, the MA012-001 features a robust cast aluminum alloy construction. Its streamlined design minimizes interference within the work cell while providing maximum structural rigidity. The arm is sealed to an IP65 rating, with the wrist assembly achieving an IP67 rating, ensuring dependable operation in environments with dust, debris, and liquid splashes. This protection reduces downtime and lowers maintenance costs over the robot's lifespan. A key benefit of this robot arm is its impressive combination of payload and reach. With a maximum payload capacity of 25 kg, the MA012-001 can handle a wide variety of parts, fixtures, and end-of-arm tooling. This capability is complemented by a horizontal reach of 1710 mm, which creates a large, versatile work envelope. This extended reach allows the robot to service multiple machines, access large workpieces, or perform complex palletizing patterns without requiring additional linear tracks, simplifying cell design and reducing capital investment. The six axes of motion provide superior dexterity, enabling the arm to maneuver around obstacles and orient tooling with high precision for intricate tasks. This flexibility is critical for applications such as complex assembly, arc welding, and sealant application. Furthermore, the robot achieves a position repeatability of ± 0.03 mm, a specification that guarantees consistent quality in high-precision processes. This level of accuracy is essential for tasks where even minor deviations can lead to product defects, such as electronics assembly or precise part insertion. Typical applications for the MA012-001 robot arm include: * Machine Tending: Loading and unloading CNC machines, injection molding presses, and stamping presses. * Material Handling: Transferring parts between conveyors, stacking, and sorting. * Palletizing and Depalletizing: Systematically arranging boxes, bags, or other products onto pallets. * Assembly: Performing multi-step assembly operations with high accuracy. * Welding and Dispensing: Executing consistent paths for welding, sealing, or gluing applications. Installation is streamlined through a standard ISO mounting flange, facilitating integration with existing or new automation cells. The robot arm is designed for straightforward integration into plant-wide automation systems.

Technical Specifications

Parameter	Value	Unit
Weight	285.0	kg
Material	Cast Aluminum Alloy	
Voltage	380-480VAC 3-Phase	
IP Rating	IP65 (Body), IP67 (Wrist)	
Country of Origin	KR	
Protocol	EtherCAT	
Reach	1710 mm	
Payload	25 kg	
Axes	6	
Repeatability	±0.03 mm	

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