

NexBot Robotics MA012-004

6-Axis Robot Arm 25kg Payload

NexBot
Robotics

SKU: NXB-ROB-MA012-004 | Category: Robots > Articulated Robots > Medium Articulated (10-50kg)

Overview

The NexBot Robotics MA012-004 is a high-performance 6-axis articulated robot arm engineered for complex automation tasks in demanding industrial environments. This robot provides an ideal balance of payload capacity, reach, and speed, making it a flexible solution for a wide range of applications. Its robust construction ensures reliable operation and a long service life, even under continuous use cycles. The core of the MA012-004 is its powerful and precise drive system, which delivers exceptional motion control across all six axes. With a maximum payload capacity of 25 kg, this arm can handle not only the workpiece but also complex end-of-arm tooling, such as multi-part grippers or welding heads. The generous horizontal reach of 1600 mm provides a large, accessible work envelope, suitable for serving multiple machines or working around large fixtures. This combination of strength and reach allows for efficient integration into existing production lines without significant layout changes. Precision is critical in modern manufacturing, and the MA012-004 robot arm delivers outstanding position repeatability of ± 0.03 mm. This level of accuracy ensures consistent quality for tasks like intricate assembly, precise part insertion, and dispensing applications where deviation is not an option. The articulated design of the robot arm offers maximum dexterity, enabling it to maneuver in tight spaces and access difficult-to-reach points on a workpiece. Common applications for the MA012-004 include: - CNC machine tending - High-speed material handling and transfer - Palletizing and depalletizing - Automated assembly and inspection - Arc welding and sealant application support Designed for ease of integration, the robot arm features an ISO 9409-1 standard tool flange for broad compatibility with end-effectors. Internal routing for air and electrical lines helps to minimize interference and wear, simplifying installation and maintenance. The robot is constructed from high-strength cast aluminum alloy and features an IP65 rating (with an IP67-rated wrist), ensuring protection against dust and water ingress in typical factory settings. This durable robot arm is a dependable asset for increasing productivity and improving process consistency.

Technical Specifications

Parameter	Value	Unit
Weight	275.0	kg
Material	High-Strength Cast Aluminum Alloy	
Voltage	400-480VAC 3-Phase	

Parameter	Value	Unit
IP Rating	IP65 (IP67 for wrist)	
Country of Origin	DE	
Protocol	EtherCAT	
Reach	1600 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).