

NexBot Drives TBL021-002 Collaborative Robot Arm 10kg Payload

NexBot Robotics

SKU: NXB-ROB-TBL021-002 | Category: Robots
> Collaborative Robots > Tabletop Cobots
(≤5kg)

Overview

The NexBot Drives TBL021-002 is a versatile 6-axis collaborative robot arm designed for automating tasks alongside human operators in diverse industrial settings. This cobot combines a substantial 10 kg payload capacity with a flexible and compact design, making it suitable for a wide range of applications without requiring extensive safety guarding. Its primary use is to enhance productivity and precision in repetitive or ergonomically challenging tasks. Key to its performance is a generous 1300 mm reach, which provides a large, accessible work envelope for interacting with multiple machines, conveyor systems, or large workpieces. The robot arm achieves a position repeatability of ± 0.03 mm, ensuring consistent and high-quality results in delicate operations such as electronics assembly, intricate part handling, and quality inspection. The integrated force-torque sensing technology in each joint allows the robot to detect unexpected forces and stop safely, enabling safe collaboration with human workers in shared workspaces. This feature is critical for deploying the cobot in environments where complete separation is not feasible or desired. Common applications for the TBL021-002 robot include CNC machine tending, injection molding machine unloading, packaging and palletizing, and complex assembly sequences. Its intuitive programming interface allows operators with minimal robotics experience to create and modify routines quickly, reducing deployment time and lowering the barrier to automation. The robot is constructed from durable cast aluminum, providing a rigid yet lightweight structure for dynamic performance. Installation is streamlined with a standard ISO 9409-1-50-4-M6 mounting flange, allowing for easy integration with existing work cells and end-of-arm tooling.

Technical Specifications

Parameter	Value	Unit
Weight	33.5	kg
Material	Cast Aluminum Alloy	

Parameter	Value	Unit
Voltage	48VDC	
IP Rating	IP54	
Country of Origin	CH	
Protocol	EtherCAT	
Reach	1300 mm	
Payload	10 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).