

NexBot Drives FLR022-006 Collaborative Robot Arm 10kg Payload

NexBot Robotics

SKU: NXB-ROB-FLR022-006 | Category: Robots > Collaborative Robots > Floor Cobots (5-20kg)

Overview

The NexBot Drives FLR022-006 is a versatile 6-axis collaborative robot arm engineered for medium-payload applications requiring close human-robot collaboration. This robot is designed to augment human labor by automating repetitive or strenuous tasks safely and efficiently, increasing productivity and improving workplace ergonomics without the need for extensive safety fencing. Key Features and Benefits: With a substantial 10 kg payload capacity and a generous 1300 mm reach, the FLR022-006 is perfectly suited for a wide range of tasks. This combination allows the robot to handle larger parts and service multiple workstations or machines from a single, fixed position, maximizing its utility on the factory floor. The arm's design delivers exceptional positional repeatability of ± 0.03 mm, ensuring that processes like component assembly, dispensing, and quality inspection are performed with consistent accuracy, cycle after cycle. This level of precision is critical for maintaining high product quality and reducing defects. At its core, the FLR022-006 is a collaborative robot, or cobot. Integrated force-torque sensing in all six joints allows it to detect unexpected contact and stop safely, enabling operators to work alongside the robot. It complies with key safety standards for power and force limiting, making it suitable for fenceless installations after a proper risk assessment. The robot also supports intuitive programming through a graphical user interface and hand-guiding capabilities. Operators can physically guide the arm to teach waypoints, drastically reducing programming time and complexity, and empowering non-expert users to deploy and redeploy the robot for new tasks quickly. Applications: The FLR022-006 excels in applications such as CNC machine tending, injection molding machine unloading, pick-and-place operations, packaging and palletizing, light assembly, and automated inspection. Its versatility makes it a valuable asset in industries ranging from automotive and electronics to consumer goods and logistics. Integration: The robot features a standard ISO 9409-1-50-4-M6 mounting flange for the base and end-of-arm tooling, simplifying integration with third-party grippers and accessories. It operates on a 48VDC power supply and communicates via EtherCAT for reliable, high-speed control within a larger automation system.

Technical Specifications

Parameter	Value	Unit
Weight	35.5	kg
Material	Cast Aluminum Alloy	
Voltage	48VDC	

Parameter	Value	Unit
IP Rating	IP54	
Country of Origin	DE	
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).