

NexBot Vision CLR032-003 SCARA Robot 5kg Payload

NexBot
Robotics

SKU: NXB-ROB-CLR032-003 | Category: Robots
> SCARA Robots > Cleanroom SCARA

Overview

The NexBot Vision CLR032-003 is a four-axis SCARA robot engineered for high-precision assembly and handling tasks within demanding cleanroom environments. Specifically designed to meet ISO 14644-1 Class 3 standards, this robot minimizes particulate generation through its smooth, chemical-resistant surface coating, concealed cabling, and internally routed air lines, making it an ideal solution for semiconductor, pharmaceutical, and medical device manufacturing. At its core, the CLR032-003 delivers high performance with a compact footprint. It provides a horizontal reach of 320 mm and a vertical Z-axis stroke of 150 mm, enabling versatile operation within constrained work cells. The robot capably manages a maximum payload of 5 kg, suitable for a wide range of end-of-arm tooling and workpieces. Its design prioritizes speed and precision, achieving rapid cycle times that enhance throughput without compromising on accuracy. This performance is anchored by an outstanding position repeatability of ± 0.01 mm, which is critical for intricate tasks like wafer handling, micro-assembly, and sterile packaging. The robot's robust construction ensures reliability and long service life in continuous-duty operations. Its four-axis configuration (J1, J2, Z, U) provides the flexibility needed for complex pick-and-place, sorting, and assembly sequences. Installation is streamlined with a standard bottom-mounting flange, allowing for straightforward integration into existing or new automation systems. The CLR032-003 is built for seamless connectivity with external systems, supporting common industrial communication protocols for easy integration with PLCs and other machine automation hardware. This combination of cleanroom compliance, precision, and speed makes the NexBot Vision CLR032-003 robot a highly effective tool for automating sensitive manufacturing processes.

Technical Specifications

Parameter	Value	Unit
Weight	22.5	kg
Material	Cast Aluminum with Chemical-Resistant Coating	

Parameter	Value	Unit
Voltage	200-240VAC Single Phase	
IP Rating	IP65	
Country of Origin	KR	
Protocol	EtherCAT	
Reach	320 mm	
Payload	5 kg	
Axes	4	
Repeatability	±0.01 mm	

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