

NexBot Robotics ELC412-004

Electric Gripper 120N

NexBot
Robotics

SKU: NXB-GEN-ELC412-004 | Category: End-of-Arm
Tooling > Grippers > Electric Grippers

Overview

The NexBot Robotics ELC412-004 is a versatile two-finger parallel electric gripper engineered for precision handling and assembly tasks in automated industrial environments. This end-of-arm tool provides reliable performance for applications requiring consistent force and position control, such as electronics manufacturing, CNC machine tending, and packaging. Key features include a fully programmable gripping force, adjustable from 5 N up to a maximum of 120 N, allowing for the secure handling of both delicate and robust components without causing damage. The gripper's stroke is 12 mm per finger, providing flexibility for a range of part sizes. Its design incorporates high-resolution position feedback and onboard motion control, which simplifies system integration and eliminates the need for external management hardware. With a positioning repeatability of ± 0.02 mm, the ELC412-004 ensures that parts are placed accurately every cycle, contributing to higher production quality and reduced scrap rates. Communication is streamlined via an integrated IO-Link interface, enabling real-time diagnostics, parameter adjustments, and seamless connection to the main robot system. This smart communication protocol provides valuable data on grip status, position, and operating temperature, facilitating predictive maintenance and process optimization. The gripper's housing is constructed from durable, hard-anodized aluminum, and it carries an IP54 rating, making it suitable for deployment in environments with moderate exposure to dust and moisture. Installation is straightforward, utilizing a standard ISO 9409-1-50-4-M6 mounting pattern for direct attachment to compatible NexBot Robotics arm models.

Technical Specifications

Parameter	Value	Unit
Weight	1.4	kg
Material	Aluminum 6061-T6, Anodized	
Voltage	24VDC	
IP Rating	IP54	
Country of Origin	DE	
Protocol	IO-Link	
Dimensions	165 x 90 x 75 mm	

Parameter	Value	Unit
Repeatability	±0.02 mm	
Torque	4 Nm	

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