

NexBot Drives ELC412-014

Electric Gripper

NexBot
Robotics

SKU: NXB-GEN-ELC412-014 | Category: End-of-Arm
Tooling > Grippers > Electric Grippers

Overview

The NexBot Drives ELC412-014 is a parallel electric gripper designed for precision handling and assembly applications in automated environments. This end-of-arm tool eliminates the need for compressed air infrastructure, offering a quieter, cleaner, and more energy-efficient alternative to pneumatic grippers. Its integrated design provides precise control over gripping force, speed, and jaw position, enabling the secure and delicate handling of a wide variety of parts. Key features include a programmable gripping force up to 120 N and a total stroke of 14 mm, allowing for significant operational flexibility. The gripper achieves a high position repeatability of ± 0.02 mm, which is critical for tasks requiring consistent placement, such as electronics assembly or machine tending of small components. The self-locking mechanism ensures that the workpiece is held securely even in the event of a power loss, enhancing operational safety and preventing dropped parts. Communication and control are managed via a standard IO-Link interface, simplifying integration with the robot system and providing diagnostic feedback. Typical applications for the ELC412-014 electric gripper include pick-and-place operations, sorting, kitting, and light-duty assembly. Its compact and lightweight construction minimizes the impact on the robot's overall payload capacity, making it suitable for both collaborative and smaller industrial robot arms. The gripper features a standardized mounting flange for straightforward installation onto the robot wrist. The robust, enclosed design protects internal components from industrial contaminants, ensuring reliable performance and a long service life with minimal maintenance requirements.

Technical Specifications

Parameter	Value	Unit
Weight	1.6	kg
Material	Anodized Aluminum 6061-T6	
Voltage	24VDC	
IP Rating	IP54	
Country of Origin	KR	
Protocol	IO-Link	
Dimensions	160 x 95 x 50 mm	

Parameter	Value	Unit
Repeatability	±0.02 mm	
Torque	14 Nm	

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