

NexBot Robotics 421-005 Automatic Tool Changer 50 kg Payload

NexBot
Robotics

SKU: NXB-GEN-421-005 | Category: End-of-Arm
Tooling > Tool Changers > Automatic Tool Changers

Overview

The NexBot Robotics 421-005 Automatic Tool Changer is a high-performance robotic peripheral designed to enable a single robot arm to perform multiple tasks by automatically swapping between different end-of-arm tools (EOAT). This changer empowers manufacturers to maximize robot utilization and adapt production lines with minimal downtime. Its core function is to provide a secure and highly repeatable mechanical and utility connection between the robot arm and various end effectors, such as grippers, welders, or material removal tools. The 421-005 features a robust, cam-driven locking mechanism that ensures a high-rigidity connection, critical for applications requiring precision. This design delivers an exceptional tool-side repeatability of ± 0.02 mm, ensuring that processes like intricate assembly or precise part placement are consistent after every tool change. With a substantial payload capacity of 50 kg and a static bending moment capacity of 500 Nm, it is well-suited for a wide range of medium-duty industrial applications. Integrated utility pass-throughs simplify EOAT integration by routing essential services directly through the changer body. This model includes eight 2A electrical contacts and four 1/4" pneumatic ports, eliminating the need for external cabling and hosing that can snag or wear over time. This streamlined design reduces points of failure and simplifies programming of robot movements. Constructed from hard-anodized 7075-T6 aluminum, the changer offers an excellent balance of strength, low weight, and corrosion resistance for demanding factory environments. Installation is straightforward, utilizing a standard ISO 9409-1-50-4-M6 mounting flange for direct attachment to compatible NexBot Robotics arms. The 24VDC operation for the lock/unlock mechanism integrates easily with standard robot I/O systems. This automatic tool changer is an essential component for creating flexible and efficient robotic cells in assembly, machine tending, and material handling operations.

Technical Specifications

Parameter	Value	Unit
Weight	4.8	kg
Material	Hard-Anodized Aluminum 7075-T6	
Voltage	24VDC	
IP Rating	IP65	
Country of Origin	DE	

Parameter	Value	Unit
Dimensions	150 x 150 x 95 mm	
Payload	50 kg	
Repeatability	±0.02 mm	
Torque	500 Nm (Static Bending Moment)	

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