

# NexBot Robotics 531-013 Circular Connector IP67 M12 8-Pin

NexBot  
Robotics

SKU: NXB-CBL-531-013 | Category: Cables & Connectors > Connectors > Circular Connectors

## Overview

The NexBot Robotics 531-013 is a high-performance M12 circular connector designed for robust and reliable connections in demanding industrial automation environments. This component is engineered to provide secure signal and low-voltage power transmission for sensors, actuators, and communication interfaces on NexBot Robotics systems, ensuring consistent operational uptime. Its primary use case is creating dependable, quick-disconnect points for peripheral devices and cabling on the robot arm or at the controller interface. The key feature of the 531-013 connector is its IP67-rated environmental protection. Once properly mated, the connector is completely dust-tight and protected against temporary immersion in water, making it suitable for facilities with exposure to dust, washdowns, or cutting fluids. The housing is constructed from nickel-plated brass, offering excellent corrosion resistance and mechanical durability. A secure screw-locking mechanism with vibration-damping properties prevents accidental disconnection, a critical requirement for connections on moving robot arms or in high-vibration applications. This 8-pin, A-coded connector is standardized for sensor and actuator signals, supporting a voltage rating of up to 60VDC. Its configuration is ideal for complex sensors, small actuators, or fieldbus connections requiring multiple conductors. The gold-plated contacts ensure low-resistance, high-integrity signal transmission over thousands of mating cycles. Common applications include connecting proximity sensors, vision systems, pneumatic valve banks, and end-of-arm tooling (EOAT) to the robot's I/O system. The compact M12 form factor allows for high-density connections in space-constrained areas, such as on a robot's wrist (J6) or at the base (J1). Installation is straightforward, utilizing standard panel-mount or cable-end terminations for seamless integration into new or existing automation cells.

## Technical Specifications

Parameter	Value	Unit
Weight	0.04	kg
Material	Nickel-Plated Brass	
Voltage	60VDC / 30VAC	
IP Rating	IP67	
Country of Origin	KR	

Parameter	Value	Unit
Protocol	PROFINET	
Dimensions	45 x 15 x 15 mm	

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