

# NexBot Drives 512-002 Bus Power Cable

**NexBot  
Robotics**

SKU: NXB-CBL-512-002 | Category: Cables & Connectors > Power Cables > Bus Power Cables

## Overview

The NexBot Drives 512-002 Bus Power Cable is a high-performance interconnect solution designed to deliver stable and reliable DC power to servo drives and other components within a robotic system's control cabinet. This cable ensures consistent power delivery, which is critical for maintaining the precision and repeatability of automated tasks. Its primary use is to link a central DC power supply to a bank of servo drives, providing the necessary bus voltage for motion control. The key feature of the 512-002 cable is its robust, high-flexibility construction. The outer jacket is made from Polyurethane (PUR), a material known for its exceptional resistance to abrasion, oils, and industrial coolants. This makes the cable suitable for installation in dynamic applications, including drag chains (e-chains), where it can withstand millions of flex cycles without degradation. The cable's robust shielding protects against electromagnetic interference (EMI), ensuring that the power lines do not disrupt sensitive data signals from encoders or sensors running in parallel, a common challenge in compact control cabinets. With an IP67 rating, the pre-terminated connectors provide a secure, sealed connection that is impervious to dust and can withstand temporary immersion in water, guaranteeing operational integrity in harsh factory environments. This 2-meter cable is sized to accommodate typical cabinet layouts for multi-axis robotic systems. It utilizes 2.5mm<sup>2</sup> conductors to minimize voltage drop over its length, ensuring that drives at the end of the bus receive stable power for optimal performance. Common applications include powering the motion control systems for articulated robots in material handling, automated welding cells, and SCARA robots in high-speed assembly lines. Installation is streamlined thanks to pre-molded, keyed connectors that prevent incorrect wiring and reduce setup time.

## Technical Specifications

| Parameter | Value                     | Unit |
|-----------|---------------------------|------|
| Weight    | 0.45                      | kg   |
| Material  | Polyurethane (PUR) Jacket |      |
| Voltage   | 600VDC                    |      |

| Parameter         | Value               | Unit |
|-------------------|---------------------|------|
| IP Rating         | IP67                |      |
| Country of Origin | CH                  |      |
| Protocol          | PROFINET            |      |
| Dimensions        | 2m length, 8.5mm OD |      |

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