

Robotic Torsion Control Cable

This cable is designed for movement application with torsion. It is very suitable for industrial robots and manipulators and can be used in low and high temperatures whether indoors or outdoors.



Overview

High-Performance Robotic Torsion Control Cable

Engineered for demanding industrial environments, this robotic torsion control cable offers exceptional durability and flexibility. It features an ultra-fine stranded copper conductor and a robust PUR jacket, ensuring reliable performance in continuous flexing, drag chain, and torsion applications. With resistance to oil, abrasion, hydrolysis, and extreme temperatures, this cable is an ideal solution for automated machinery and dynamic robotic systems.

Electrical Specifications

Rated Voltage

300 V

UL/CSA

300 V

IEC/VDE ($\leq 0.5\text{mm}^2$)

500 V

IEC/VDE ($> 0.5\text{mm}^2$)

Test Voltage

2000V/min (AC) for both core/core and core/shield

Insulation Resistance

100 M Ω m

Mechanical Properties

Minimum Bending Radius

3 D

Fixed Application

5 D

Mobile Application

Drag Chain Performance

10000000 cycles

Environmental & Safety

Temperature Range

Application	Range
Fixed	-50°C to 80°C
Mobile	-40°C to 80°C

Certifications & Compliance

UL20936, Halogen Free, Flame Resistant (FT2), IEC 60228, VDE 0295 Class 6

Construction Details

Construction Materials

- Conductor: Ultra-fined stranded bare copper
- Insulation: TPEE
- Shield: Tinned copper spiral shield
- Jacket: PUR (Grey, RAL 7001)

Key Features

Flexible • EMI Resistant • Oil Resistant • Abrasion Resistant • Anti-Hydrolysis • Torsion Resistant