

Robotic Torsion Data Cable

This cable is designed for movement application with torsion and is very suitable for industrial robots and manipulators. It exhibits good oil resistance and can be used in high-temperature environments.



Overview

High-Flexibility Robotic Data Cable

This high-performance robotic data cable is engineered for demanding industrial environments requiring continuous movement, such as drag chains and automated machinery. Featuring ultra-fine stranded copper conductors and a robust PVC jacket, it offers exceptional resistance to torsion, bending, and harsh conditions including oil, abrasion, and hydrolysis. With excellent EMI protection and a wide temperature tolerance, this cable ensures reliable data transmission in complex robotic applications.

Electrical Performance

Rated Voltage

300 V UL/CSA Rating	300 V IEC/VDE (d0.5mm ²)	500 V IEC/VDE (>0.5mm ²)
-------------------------------	--	--

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

Insulation Resistance 100 M@M

Mechanical Specifications

Minimum Bending Radius

Application Type	Radius
Fixed Application	3D
Mobile Application	5D

Drag Chain Durability e 10million cycles

Environmental Conditions

Temperature Range

Application	Min Temp	Max Temp
Fixed	-40°C	105°C
Mobile	-5°C	105°C

Construction & Materials

Cable Construction

- Conductor: Ultra-fined stranded bare copper (IEC 60228/VDE 0295 class 6)
- Insulation: TPEE
- Shielding: Tinned copper spiral shield
- Jacket: PVC (Grey, RAL 7001)

Certifications & Key Features

UL2517 Certified, Flame Resistant (VW-1/FT1), Oil Resistant, Abrasion Resistant, Anti-Hydrolysis, EMI Shielded