

readycable® harnessed hybrid cable for ABB
robots, PUR

MAT904141220



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robots, PUR**

- For heavy-duty applications
- PUR outer jacket
- Overall shield
- Oil-resistant (according to DIN EN 50363-10-2)
- Notch-resistant
- Hydrolysis and microbe-resistant
- Flame retardant
- Halogen-free
- Silicone-free
- PVC-free
- UV-resistant
- Guarantee up to 4 years

Product description

Introducing the readycable® harnessed hybrid cable for ABB robots, designed for heavy-duty applications. Its durable PUR outer jacket provides exceptional resistance to oil, UV radiation, and environmental factors. This cable is perfect for both indoor and outdoor use, supporting unsupported travel distances and gliding applications up to 100m. With features like being notch-resistant, flame retardant, and halogen-free, this cable ensures reliability in machining, packaging, and refrigeration sectors.

General properties

Number of cores and conductor nominal cross-section	(6x(2x0.25))C
Outer diameter (d) max. mm	9 mm
Weight per km	102 kg/km
Copper index kg/km	62 kg/km

Electricity attributes

Nominal voltage	300/300V (according to DIN VDE 0298-3)
UL Voltage Rating	300 V
Test voltage	1500V (according to DIN EN 50395)
Maximum conductor resistance at 20°C [μ m]	79.0000



Cable structure

Conductor	Very finely stranded special conductors of a particularly bend-resistant design, made of bare copper wires.
Core insulation	Mechanically high-quality TPE mixture.
Core stranding	Cores twisted in pairs with short pitch lengths, core pairs then wound with short pitch lengths.
Conductor colours	Colour code according to DIN 47100
Core group 1 core structure	(6x(2x0.25))C
Overall shield	Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
Outer jacket	Low-adhesion, halogen-free, highly abrasion-resistant PUR mixture, adapted to suit the requirements in e-chains® (according to DIN EN 50363-10-2).
Outer jacket colour	Window grey (comparable to RAL 7040)

Properties and approvals

UV resistance	Medium
Oil resistance	Oil-resistant (according to DIN EN 50363-10-2), Class 3
Offshore	MUD-resistant according to NEK 606 - status 2018
Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2/Horizontal Flame
Silicone-free	Free from silicone which can affect paint adhesion (according to PV 3.10.7 – status 1992)
Halogen-free	According to DIN EN 60754
UL verified	Certificate no. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
UL/CSA AWM	val_ul_csa_75
NFPA	According to NFPA 79-2018, chapter 12.9
DNV	Type approval certificate TAE00003X3
REACH	In accordance with Regulation (EC) No. 1907/2006 (REACH)
Lead-free	According to 2011/65/EU (RoHS-II/RoHS-III)
Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
CE	According to 2014/35/EU



Dynamic properties

Min. bend radius, e-chain (factor)	7.5 x d
Min. bend radius, e-chain	67.5 mm
Min. bend radius, flexible (factor)	6 x d
Min. bend radius, fixed (factor)	4 x d
Temperature e-chain®	-25°C up to +80°C
Temperature, flexible	-40°C to +80°C (according to DIN EN 60811-504)
Temperature, fixed	-50°C to +80°C (according to DIN EN 50305)
v max. unsupported (speed)	5 m/s
v max. gliding (speed)	3 m/s
a max. (acceleration)	50 m/s²
travel length	Class 5
torsion	No torsion

Certificates and standards

