

readycable® harnessed hybrid cable for ABB
robots, PUR
MAT904141219



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- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Flame retardant
- PVC and halogen-free
- Notch-resistant
- Hydrolysis and microbe-resistant

Product description

Introducing the readycable® harnessed hybrid cable for ABB robots, designed for optimal performance in demanding environments. This cable features a durable PUR outer jacket, ensuring it is oil-resistant, coolant-resistant, and flame retardant. Its shielded design offers enhanced protection, while being PVC and halogen-free. Additionally, it is notch-resistant and resistant to hydrolysis and microbes, making it a reliable choice for your robotic applications. Choose readycable® for quality and durability.

General properties

Number of cores and conductor nominal cross-section	(18G2.5)C
Outer diameter (d) max. mm	25.5 mm
Weight per km	882 kg/km
Copper index kg/km	545 kg/km

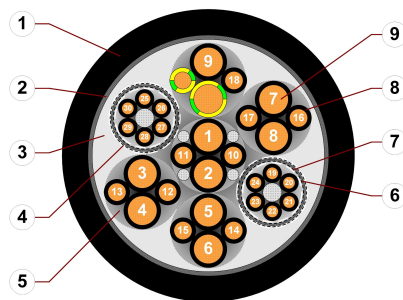
Electricity attributes

 Nominal voltage	600/1,000V (according to DIN VDE 0298-3)
UL Voltage Rating	1000 V
 Test voltage	4000V (according to DIN EN 50395)



Cable structure

	Conductor	Finely stranded conductor consisting of bare copper wires (according to DIN EN 60228).
	Core insulation	Mechanically high-quality TPE mixture.
Core group 1 core structure		(18G2.5)C
Core group 1 colour code		Black cores with white numbers 1-17, one green-yellow core
	Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
	Overall shield	Bend-resistant braiding made of tinned copper wires. Coverage approx. 50% linear, approx. 80% optical
	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	Jet black (comparable to RAL 9005)



1. Outer jacket: pressure extruded PUR mixture
2. Overall shield: flexible braiding made of tinned copper wires.
3. Inner jacket: pressure extruded, gusset-filling TPE mixture
4. Element banding: synthetic fleece over plastic foil
5. Bundles with optimised pitch length and direction
6. Element shield: bend-resistant braiding of tinned copper wires
7. Element banding: plastic foil over plastic fleece
8. Core insulation: mechanically high-quality TPE mixture
9. Conductor: fine stranded wire made of bare copper wires



Properties and approvals

	UV resistance	High
	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. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
	NFPA	According to NFPA 79-2018, chapter 12.9
	REACH	In accordance with Regulation (EC) No. 1907/2006 (REACH)
	CE	According to 2014/35/EU



Dynamic properties

	Min. bend radius, e-chain (factor)	10 x d
	Min. bend radius, e-chain	255 mm
	Min. bend radius, flexible (factor)	8 x d
	Min. bend radius, fixed (factor)	5 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)	3 m/s
	v max. gliding (speed)	2 m/s
	a max. (acceleration)	20 m/s ²
	torsion	No torsion

Certificates and standards

