

readycable® hybrid cable Kuka Quantec direct connection cable

MAT904141231



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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® hybrid cable Kuka Quantec direct connection cable, designed for reliable performance in robotic applications. This cable features a durable PUR outer jacket, ensuring it is oil-resistant, coolant-resistant, and flame retardant. With its shielded design, it offers protection against interference while being notch-resistant and free from PVC and halogens. Additionally, it is hydrolysis and microbe-resistant, making it perfect for demanding environments. Trust this cable for your seventh robot axis needs.

General properties

Number of cores and conductor nominal cross-section	(2x(3x1.5)C+3x(3x10)+1G10)C
Outer diameter (d) max. mm	36 mm
Weight per km	2122 kg/km
Copper index kg/km	1340 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	2x(3x1.5)C
Core group 1 colour code	Black cores with white numerals 10-15
Core group 2 core structure	3x(3x10)
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)

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	355 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/s²
torsion	No torsion



Certificates and standards

