

readycable® hybrid cable Kuka Quantec
MAT904141225



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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, designed for reliable performance in robotics. This cable features a durable PUR outer jacket, ensuring it is shielded, oil-resistant, and coolant-resistant. It is also flame retardant, PVC and halogen-free, notch-resistant, and resistant to hydrolysis and microbes. Perfect for the seventh robot axis, it meets the electrical standards of KUKA, ABB, and Fanuc, making it an ideal choice for your automation needs.

General properties

Number of cores and conductor nominal cross-section	(5x(2x6.0+2x2.5)+2x(6x1.0)C)C
Outer diameter (d) max. mm	35.5 mm
Weight per km	2033 kg/km
Copper index kg/km	1250 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	10x6.0
Core group 1 colour code	Black cores with white numbers 1-9, one green-yellow core
Core group 2 core structure	10x2.5
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

