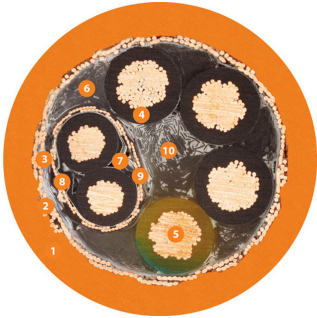


readycable® motor cable Kuka Quantec Fortec  
Titan single axis 7th axis  
**MAT904105006**



readycable® motor cable Kuka Quantec Fortec  
Titan single axis 7th axis

- For medium-duty applications
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Notch-resistant
- Flame retardant
- Hydrolysis and microbe-resistant
- PVC and halogen-free
- Guarantee up to 4 years

Product description

Introducing the readycable® motor cable Kuka Quantec Fortec Titan single axis 7th axis, designed for medium duty applications. This cable features a durable PUR outer jacket that is oil, flame, and coolant-resistant, making it perfect for both indoor and outdoor use. Its halogen-free and silicone-free composition ensures safety, while its notch-resistant and hydrolysis properties enhance longevity. Ideal for unsupported travel distances and low-temperature settings, this cable is your reliable choice for demanding environments.

Connectors

|             |                              |
|-------------|------------------------------|
| Connector A | M23 connector, socket, 6-pin |
| Connector B | M23 coupling, pin, 6-pin     |

General properties

|                                                     |                   |
|-----------------------------------------------------|-------------------|
| Number of cores and conductor nominal cross-section | (4G2.5+(2x1.5)C)C |
| Outer diameter (d) max. mm                          | 13 mm             |
| Weight per km                                       | 248 kg/km         |
| Copper index kg/km                                  | 195 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**

Stranded conductor in an especially bend-resistant version consisting of bare copper wires (according to DIN EN 60228).



**Core insulation**

Mechanically high-quality, especially low-capacity XLPE mixture.



**Core stranding**

Power cores and control pair elements wound with a short pitch length around a high tensile strength centre element.



**Conductor colours**

Power cores: cores black with white digits, one core green-yellow. 1st core: U / L1 / C / L+ 2nd core: V / L2 3rd core: W / L3 / D / L- Control pair: Cores black with white numbers. 1st control wire: 4 2nd control wire: 5

**Core group 1 core structure**

4G2.5

**Core group 2 core structure**

(2x1.5)C



**Element shield**

Flexible braiding made of tinned copper wires.



**Overall shield**

Bend-resistant braiding made of tinned copper wires. Coverage approx. 55% 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**

Pastel orange (comparable to RAL 2003)



## Properties and approvals

|                                                                                    |                        |                                                                                                                                      |
|------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UV resistance</b>   | Medium                                                                                                                               |
|    | <b>Oil resistance</b>  | Oil-resistant (according to DIN EN 50363-10-2), Class 3                                                                              |
|    | <b>Offshore</b>        | MUD-resistant according to NEK 606 - status 2018                                                                                     |
|    | <b>Flame-retardant</b> | According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2/Horizontal Flame                                                             |
|    | <b>Silicone-free</b>   | Free from silicone which can affect paint adhesion (according to PV 3.10.7 – status 1992)                                            |
|    | <b>Halogen-free</b>    | According to DIN EN 60754                                                                                                            |
|    | <b>UL verified</b>     | Certificate no. V293650: "igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year" |
|   | <b>UL/CSA AWM</b>      | Style 30052 und 21209, 1000 V, 90°C                                                                                                  |
|  | <b>NFPA</b>            | According to NFPA 79-2018, chapter 12.9                                                                                              |
|  | <b>REACH</b>           | In accordance with Regulation (EC) No. 1907/2006 (REACH)                                                                             |
|  | <b>Lead-free</b>       | According to 2011/65/EU (RoHS-II/RoHS-III)                                                                                           |
|  | <b>CE</b>              | According to 2014/35/EU                                                                                                              |



## Dynamic properties

|                                                                                    |                                     |                                                |
|------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------|
|    | Min. bend radius, e-chain (factor)  | 10 x d                                         |
|    | Min. bend radius, e-chain           | 130 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)          | 10 m/s                                         |
|  | v max. gliding (speed)              | 2 m/s                                          |
|  | a max. (acceleration)               | 50 m/s <sup>2</sup>                            |
|  | travel length                       | Class 2                                        |
|  | torsion                             | No torsion                                     |



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions

Further information: [chainflex® guarantee](#)

| Double strokes* | 5 million    | 7.5 million  | 10 million   |
|-----------------|--------------|--------------|--------------|
| Temperature,    | R min.       | R min.       | R min.       |
| from/to [°C]    | [Factor x d] | [Factor x d] | [Factor x d] |
| -25 /-10        | 12.5         | 13.5         | 14.5         |
| -15 /+70        | 10           | 11           | 12           |
| +70 / +80       | 12.5         | 13.5         | 14.5         |

\* Higher number of double strokes possible - use the service life calculation function on this page.

Certificates and standards

