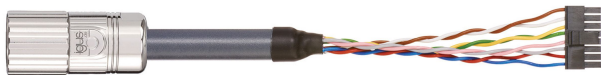


readycable® control cable Kuka Fortec Titan single  
axis 7th axis  
**MAT904105013**



**readycable® control cable Kuka Fortec Titan  
single axis 7th axis**

- For extremely heavy duty applications
- PUR outer jacket
- Overall shield
- Oil-resistant (according to DIN EN 50363-10-2)
- Coolant-resistant
- Notch-resistant
- Guarantee up to 4 years

**Product description**

Introducing the readycable® control cable Kuka Fortec Titan single axis 7th axis, designed for the heaviest duty applications. This robust cable features a durable PUR outer jacket and is resistant to oil, coolant, and UV rays, making it perfect for both indoor and outdoor use. With its flame-retardant, halogen-free, and silicone-free properties, it ensures safety and longevity. Ideal for machining, storage, packaging, and refrigeration sectors, it supports unsupported travel distances up to 100m.

**Connectors**

|             |                                   |
|-------------|-----------------------------------|
| Connector A | round connector, female, 12 poles |
| Connector B | val_273                           |

**General properties**

|                                                     |                |
|-----------------------------------------------------|----------------|
| Number of cores and conductor nominal cross-section | (4x(2x0.25)C)C |
| Outer diameter (d) max. mm                          | 11 mm          |
| Weight per km                                       | 153 kg/km      |
| Copper index kg/km                                  | 78 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)

## 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**

(4x(2x0.25)C)C

**Element shield**

Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%



**Inner jacket**

TPE mixture adapted to suit the requirements in e-chains®.



**Overall shield**

Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%



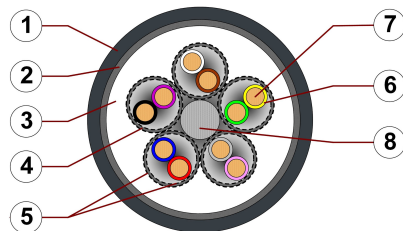
**Outer jacket**

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**

Anthracite grey (comparable to RAL 7016)



1. Outer jacket: pressure extruded PUR mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires.
3. Inner jacket: pressure-extruded, gusset-filling PUR mixture
4. Element shield: extremely flexible braiding made of tinned copper wires.
5. Banding: plastic foil
6. Core insulation: mechanically high-quality TPE mixture
7. Conductor: very finely stranded special conductor of particularly bend-resistant design made of bare copper wires
8. Strain relief: high tensile strength centre element



## Properties and approvals

|                                                                                    |                        |                                                                                                                                                           |
|------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UV resistance</b>   | High                                                                                                                                                      |
|    | <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: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"                  |
| <b>UL/CSA AWM</b>                                                                  |                        | Style 10493 and 20233, 300 V, 80 °C                                                                                                                       |
|   | <b>NFPA</b>            | According to NFPA 79-2018, chapter 12.9                                                                                                                   |
|  | <b>DNV</b>             | Type approval certificate TAE00003X3                                                                                                                      |
|  | <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>Cleanroom</b>       | 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 |
|  | <b>CE</b>              | According to 2014/35/EU                                                                                                                                   |



## Dynamic properties

|                                                                                    |                                     |                                                |
|------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------|
|    | Min. bend radius, e-chain (factor)  | 10 x d                                         |
|    | Min. bend radius, e-chain           | 110 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)              | 5 m/s                                          |
|  | a max. (acceleration)               | 80 m/s²                                        |
|  | travel length                       | Class 5                                        |
|  | 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 / -15       | 12.5         | 13.5         | 14.5         |
| -15 / +70       | 10           | 11           | 12           |
| +70 / +80       | 12.5         | 13.5         | 15.5         |

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

Certificates and standards

