

readycable® signal cable suitable for Siemens

6FX\_002-2CA54, extension cable TPW 7.5xd

MAT9071003



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- For extremely heavy duty applications
- TPE outer jacket
- Oil-resistant (following DIN EN 60811-404), resistant to bio oils (following VDMA 24568 with Plantocut 8 S-MB tested by DEA)
- Halogen-free
- Silicone-free
- Hydrolysis and microbe-resistant
- PVC-free
- CFRIP®
- Guarantee up to 4 years

Product description

Introducing the readycable® signal cable, designed for Siemens 6FX\_002-2CA54 applications. This extension cable features a durable TPE outer jacket, making it ideal for extremely heavy-duty use. It is oil-resistant, halogen-free, and silicone-free, ensuring reliability in various environments. Perfect for both indoor and outdoor applications, it withstands unsupported travels and gliding distances of over 400m. Experience unmatched performance with this versatile and resilient cable, suitable for a range of demanding tasks.

Manufacturer attributes

|                      |                 |
|----------------------|-----------------|
| Manufacturer Part No | 6FX_002-2CA54   |
| Cable type           | Extension cable |

Connectors

|             |                    |
|-------------|--------------------|
| Connector A | round plug, socket |
| Connector B | coupling, pin      |

General properties

|                                                     |                                  |
|-----------------------------------------------------|----------------------------------|
| Number of cores and conductor nominal cross-section | (3x(2x0.14)C)+(4x0.14)+(2x0.5))C |
| Outer diameter (d) max. mm                          | 10 mm                            |
| Weight per km                                       | 119 kg/km                        |
| Copper index kg/km                                  | 71 kg/km                         |



## Electricity attributes

|                                                                                  |                   |                                   |
|----------------------------------------------------------------------------------|-------------------|-----------------------------------|
|  | Nominal voltage   | 50V                               |
|                                                                                  | UL Voltage Rating | 300 V                             |
|  | Test voltage      | 1500V (according to DIN EN 50395) |

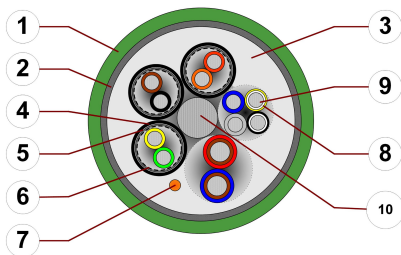
## Properties and approvals

|                                                                                    |                |                                                                                                                                                     |
|------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
|    | UV resistance  | Medium                                                                                                                                              |
|    | Oil resistance | Oil-resistant (according to DIN EN 60811-404), bio-oil-resistant (according to VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4             |
|    | 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. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"            |
|                                                                                    | UL AWM         | Style 10467 and 22355, 300 V, 80 °C                                                                                                                 |
|  | REACH          | In accordance with Regulation (EC) No. 1907/2006 (REACH)                                                                                            |
|  | Lead-free      | According to 2011/65/EU (RoHS-II/RoHS-III)                                                                                                          |
|  | Cleanroom      | According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1 |
|  | DESINA         | According to VDW, DESINA standardisation                                                                                                            |
|  | CE             | According to 2014/35/EU                                                                                                                             |



## Cable structure

|                                                                                    |                            |                                                                                                                            |
|------------------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------|
|    | <b>Conductor</b>           | Stranded conductor in an especially flexible design consisting of tinned copper wires (according to DIN EN 60228).         |
|    | <b>Core insulation</b>     | Mechanically high-quality TPE mixture.                                                                                     |
|    | <b>Core stranding</b>      | According to measuring system specification                                                                                |
|    | <b>Conductor colours</b>   | according to measuring system specification                                                                                |
| <b>Core group 1 core structure</b>                                                 |                            | 3x(2x0.14)C                                                                                                                |
| <b>Core group 1 colour code</b>                                                    |                            | green/yellow, black/brown, red/orange                                                                                      |
| <b>Core group 2 core structure</b>                                                 |                            | (4x0.14)                                                                                                                   |
|    | <b>Element shield</b>      | Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%                  |
| <b>Element jacket</b>                                                              |                            | TPE mixture on pair shielding adapted to suit the requirements in e-chains®.                                               |
| <b>Inner jacket</b>                                                                |                            | TPE mixture adapted to suit the requirements in e-chains®.                                                                 |
|   | <b>Overall shield</b>      | Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%                  |
|  | <b>Outer jacket</b>        | Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. |
|  | <b>Outer jacket colour</b> | Yellow-green (comparable to RAL 6018)                                                                                      |
| <b>CFRIP®</b>                                                                      |                            | Strip cables faster: a tear strip is moulded into the inner jacket                                                         |



1. Outer jacket: pressure-extruded, halogen-free TPE mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires
3. Inner jacket: pressure-extruded, gusset-filling TPE mixture
4. Element jacket: mechanically high-quality TPE mixture
5. Element shield: extremely flexible tinned copper wire
6. Banding: plastic foil
7. CFRIP: tear strip for faster stripping
8. Core insulation: mechanically high-quality TPE mixture
9. Conductor: stranded wire conductors in a particularly flexible design made of tinned copper wires
10. Strain relief: high tensile strength centre element



## Dynamic properties

|                                                                                    |                                     |                                                |
|------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------|
|    | Min. bend radius, e-chain (factor)  | 6.8 x d                                        |
|    | Min. bend radius, e-chain           | 68 mm                                          |
|    | Min. bend radius, flexible (factor) | 5 x d                                          |
|    | Min. bend radius, fixed (factor)    | 4 x d                                          |
|    | Temperature e-chain®                | -35°C up to +90°C                              |
|    | Temperature, flexible               | -50°C to +90°C (according to DIN EN 60811-504) |
|    | Temperature, fixed                  | -55°C to +90°C (according to DIN EN 50305)     |
|    | v max. unsupported (speed)          | 10 m/s                                         |
|   | v max. gliding (speed)              | 6 m/s                                          |
|  | a max. (acceleration)               | 100 m/s <sup>2</sup>                           |
|  | travel length                       | Class 6                                        |
|  | 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         |        | 12.5 million        |        |
|-----------------|---------------------|--------|---------------------|--------|---------------------|--------|
| Temperature,    | R min. [Factor x d] |        | R min. [Factor x d] |        | R min. [Factor x d] |        |
| from/to [°C]    | < 10 m              | ≥ 10 m | < 10 m              | ≥ 10 m | < 10 m              | ≥ 10 m |
| -35/-25         | 8.5                 | 10     | 9.5                 | 11     | 10.5                | 12     |
| -25/+80         | 6.8                 | 7.5    | 7.5                 | 8.5    | 8.8                 | 9.5    |
| +80/+90         | 8.5                 | 10     | 9.5                 | 11     | 10.5                | 12     |

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

Certificates and standards

