

readycable® servo cable suitable for Allen Bradley

2090-CPBM4DF-14AFxx, basic cable PVC 15xd

MAT9461794



readycable® servo cable suitable for Allen

Bradley 2090-CPBM4DF-14AFxx, basic cable

PVC 15xd

- For flexing applications
- PVC outer jacket
- Not oil-resistant
- Silicone-free
- Flame retardant
- Overall shield
- Guarantee up to 4 years

Product description

Introducing the readycable® servo cable, designed for compatibility with Allen Bradley 2090-CPBM4DF-14AFxx. This PVC cable is perfect for flexing applications, ideal for indoor use without oil influence. It supports unsupported travels up to 10m, making it suitable for industries like wood processing, packaging, and handling devices. With a flame-retardant design and silicone-free construction, this cable ensures safety and reliability in your operations. Choose readycable® for quality and performance.

Manufacturer attributes

|                      |                     |
|----------------------|---------------------|
| Manufacturer Part No | 2090-CPBM4DF-14AFxx |
| Cable type           | Basic cable         |

Connectors

|             |                    |
|-------------|--------------------|
| Connector A | round plug, socket |
| Connector B | open cable end     |

General properties

|                                                     |                   |
|-----------------------------------------------------|-------------------|
| Number of cores and conductor nominal cross-section | (4G2.5+(2x1.5)C)C |
| Outer diameter (d) max. mm                          | 13.5 mm           |
| Weight per km                                       | 254 kg/km         |
| Copper index kg/km                                  | 182 kg/km         |

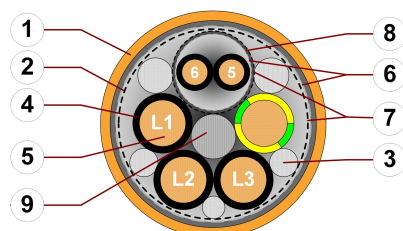


## Electricity attributes

|                                                                                  |                   |                                          |
|----------------------------------------------------------------------------------|-------------------|------------------------------------------|
|  | 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                   | Conductor consisting of bare copper wires (according to DIN EN 60228).                                                                                                                                                           |
|    | Core insulation             | Mechanically high-quality, especially low-capacitance TPE mixture.                                                                                                                                                               |
|    | Core stranding              | Power cores and control pair elements wound together in an optimised pitch length.                                                                                                                                               |
|    | Conductor colours           | Power cores: Cores black with white numbers, one core green-yellow. 1st core: U / L1 / C / L+ 2nd core: V / L2 3rd core: W / L3 / D / L- 1 control pair: Cores black with white numbers. 1st control wire: 5 2nd control wire: 6 |
|                                                                                    | Core group 1 core structure | 4G2.5                                                                                                                                                                                                                            |
|                                                                                    | Core group 2 core structure | (2x1.5)C)C                                                                                                                                                                                                                       |
|  | Element shield              | Foil taping of optimised, flexible foil shield.                                                                                                                                                                                  |
|  | Overall shield              | Braiding made of tinned copper wires. Cover approx. 60% optical.                                                                                                                                                                 |
|  | Outer jacket                | Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®.                                                                                                                                                         |
|  | Outer jacket colour         | Pastel orange (comparable to RAL 2003)                                                                                                                                                                                           |



1. Outer jacket: pressure-extruded PVC mixture
2. Overall shield: braiding made of tinned copper wires
3. Filler: plastic yarns
4. Core insulation: mechanically high-quality, especially low-capacity TPE mixture
5. Conductor: strands consisting of bare copper wires
6. Shield film: aluminium-coated plastic foil
7. Banding: plastic foil
8. Element shield: tinned copper wires wrapped around it
9. Strain relief: plastic core element



## Properties and approvals

|                                                                                    |                        |                                                                                                                                      |
|------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UV resistance</b>   | none                                                                                                                                 |
|    | <b>Oil resistance</b>  | No oil resistance                                                                                                                    |
|    | <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>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 10492 and 2570, 1000 V, 80 °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)  | 15 x d                                        |
|    | Min. bend radius, e-chain           | 202.5 mm                                      |
|    | Min. bend radius, flexible (factor) | 12 x d                                        |
|    | Min. bend radius, fixed (factor)    | 8 x d                                         |
|    | Temperature e-chain®                | +5°C up to +70°C                              |
|    | Temperature, flexible               | -5°C to +70°C (according to DIN EN 60811-504) |
|    | Temperature, fixed                  | -15°C to +70°C (according to DIN EN 50305)    |
|    | v max. unsupported (speed)          | 3 m/s                                         |
|   | v max. gliding (speed)              | 0 m/s                                         |
|  | a max. (acceleration)               | 20 m/s <sup>2</sup>                           |
|  | travel length                       | Class 1                                       |
|  | torsion                             | No torsion                                    |



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions

Further information: [chainflex® guarantee](#)

| Double strokes* | 1 million    | 3 million    | 5 million    |
|-----------------|--------------|--------------|--------------|
| Temperature,    | R min.       | R min.       | R min.       |
| from/to [°C]    | [Factor x d] | [Factor x d] | [Factor x d] |
| +5 / +15        | 17.5         | 18.5         | 19.5         |
| +15 / +60       | 15           | 16           | 17           |
| +60 / +70       | 17.5         | 18.5         | 19.5         |

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

Certificates and standards

