

readycable® servo cable suitable for Berger Lahr

VW3M5101Rxxx, basic cable PUR 7.5xd

MAT94500001



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- For extremely heavy duty applications
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Notch-resistant
- Flame retardant
- Hydrolysis and microbe-resistant
- Guarantee up to 4 years

Product description

Introducing the readycable® servo cable, designed for Berger Lahr VW3M5101Rxxx applications. This robust cable features a durable PUR outer jacket, ensuring exceptional resistance to oil, UV rays, and harsh environmental conditions. Perfect for heavy-duty use, it supports unsupported travel distances and is ideal for high-bay warehouses, machining units, and outdoor cranes. Halogen-free and flame retardant, this cable guarantees safety and reliability in the most demanding settings.

Manufacturer attributes

|                      |              |
|----------------------|--------------|
| Manufacturer Part No | VW3M5101Rxxx |
| 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 | (4G1.5+(2x1.5)C)C |
| Outer diameter (d) max. mm                          | 13 mm             |
| Weight per km                                       | 244 kg/km         |
| Copper index kg/km                                  | 145 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 with control pair elements wound with elements for high-tensile stresses.                                                                                                                                         |
|    | 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 | 4G1.5                                                                                                                                                                                                                         |
|                                                                                    | Core group 2 core structure | (2x1.5)C)C                                                                                                                                                                                                                    |
|  | Element shield              | Extremely bend-resistant braiding made of tinned copper wires.                                                                                                                                                                |
|                                                                                    | 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         | Pastel orange (comparable to RAL 2003)                                                                                                                                                                                        |
|                                                                                    | CFRIP®                      | Strip cables faster: a tear strip is moulded into the inner jacket                                                                                                                                                            |



## Dynamic properties

|                                                                                    |                                     |                                                |
|------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------|
|    | Min. bend radius, e-chain (factor)  | 7.5 x d                                        |
|    | Min. bend radius, e-chain           | 97.5 mm                                        |
|    | Min. bend radius, flexible (factor) | 6 x d                                          |
|    | Min. bend radius, fixed (factor)    | 4 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/s <sup>2</sup>                            |
|  | 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        | 10           | 11           | 12           |
| -15 /+70        | 7.5          | 8.5          | 9.5          |
| +70 / +80       | 10           | 11           | 12           |

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



## 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 10492 and 20234, 1000 V, 80 °C                                                                                                                      |
|  | <b>NFPA</b>            | According to NFPA 79-2018, chapter 12.9                                                                                                                   |
|  | <b>DNV</b>             | Type approval certificate TAE00003XA                                                                                                                      |
|  | <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>DESINA</b>          | According to VDW, DESINA standardisation                                                                                                                  |
|  | <b>CE</b>              | According to 2014/35/EU                                                                                                                                   |



Certificates and standards

