

## Technical data sheet

PUR servo cables · C-track compatible · shielded

**LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV**  
**High Flexing Motor Cable for Siemens and other systems**  
**For highest requirements**



### Identification

|                      |                                      |
|----------------------|--------------------------------------|
| Type                 | SU+ M (C) PUR SE (4G10+(2×1,5)) 90°C |
| Part No.             | <a href="#">111424.1000</a>          |
| SIEMENS designation* | 1BA51                                |

### Product version

|                   |    |
|-------------------|----|
| Datasheet version | 00 |
|-------------------|----|

### Use/Application/Properties

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application | <ul style="list-style-type: none"><li>• Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology</li><li>• Through optimized cable construction optimally suited for continuous flexing applications in C-tracks</li><li>• Very good resistance against aggressive coolants and lubricants</li><li>• Especially for industrial environments in mechanical and system engineering</li></ul>                                                                                                                   |
| Properties  | <ul style="list-style-type: none"><li>• High protection against electromagnetic interferences (EMI)</li><li>• Braided shield optimised for continuous flexing use</li><li>• Very good alternating bending strength</li><li>• Low adhesion, abrasion-resistant, nick-resistant, tear-resistant</li><li>• Hydrolysis-resistant, microbe-resistant, and rot-resistant</li><li>• Weathering, ozone and UV resistant (normal lighting conditions)</li><li>• Excellent coolant and lubricant resistance</li><li>• Largely resistant to oils, greases, alcohol-free benzines and kerosene</li><li>• Silicone free</li></ul> |

### Construction

|                                    |                                          |
|------------------------------------|------------------------------------------|
| Description                        | SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV |
| Number of conductors/cross-section | (4G10+(2×1,5))                           |
| Number of conductors               | 6                                        |
| Cross-section, metric              | 10 mm²                                   |

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|                    |                                                  |
|--------------------|--------------------------------------------------|
| Jacket material    | Special PUR                                      |
| Jacket color       | orange similar to RAL 2003                       |
| Outer Ø            | 19.7 mm                                          |
| Surface            | adhesion-free                                    |
| Weight             | 69.21 kg/100 m                                   |
| Weight             | 463.69 Lbs/Mft                                   |
| Cu-Index           | 52.6 kg/100 m                                    |
| Cable construction | Construction with one signal pair (white, black) |

#### Construction Element 1

|                      |                                                                       |
|----------------------|-----------------------------------------------------------------------|
| Element construction | (4G10)                                                                |
| Conductor            | CU-wire bare                                                          |
| Conductor category   | Superfinely stranded DIN VDE 0295<br>DIN EN 60228, Class 6            |
| Conductor marking    | According to system manufacturer                                      |
| Conductor insulation | PP                                                                    |
| Stranding            | Conductors twisted without mechanical stress<br>Layer pitch optimised |

#### Construction Element 2

|                      |                                     |
|----------------------|-------------------------------------|
| Element construction | (2×1,5)                             |
| Conductor            | CU-wire bare                        |
| Conductor marking    | According to system manufacturer    |
| Conductor insulation | PP                                  |
| Stranding            | Conductors stranded in pairs        |
| Element shielding    | Braid shield<br>tinned copper wires |

#### Overall construction

|                   |                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------|
| Overall stranding | Elements stranded together<br>Conductors twisted without mechanical stress<br>Layer pitch optimised |
| Overall shield    | Braid shield<br>Optical cover approx. 85 %                                                          |

#### Technical data

|                               |                     |
|-------------------------------|---------------------|
| Rated voltage $U_0/U$         | 1000                |
| Test voltage type             | AC 4000 V           |
| Temperature range moving      | -25 °C ... +90 °C   |
| Temperature range fixed       | -40 °C ... +90 °C   |
| Minimum bending radius moving | 7.5×D               |
| Minimum bending radius fixed  | 5×D                 |
| Bending cycles                | ≥10 Mio             |
| Speed                         | 5 m/s               |
| Acceleration                  | 50 m/s <sup>2</sup> |
| Torsion                       | ± 30°/m             |

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### Technical Data Element 1

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|                                   |             |
|-----------------------------------|-------------|
| Element construction              | (4G10)      |
| Insulation resistance at 20 °C    | ≥1000 MΩ×km |
| Operating capacitance wire-wire   | 140 pF/m    |
| Operating capacitance wire-shield | 245 pF/m    |

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### Technical Data Element 2

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|                                   |          |
|-----------------------------------|----------|
| Element construction              | (2×1,5)  |
| Operating capacitance wire-wire   | 140 pF/m |
| Operating capacitance wire-shield | 210 pF/m |

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### Certifications/Standards

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|                               |                                                |
|-------------------------------|------------------------------------------------|
| Certifications                | cURus                                          |
| UL style                      | AWM 21209                                      |
| Conformity                    | CE<br>RoHS<br>REACH<br>TSCA                    |
| Burning behavior according to | IEC 60332-1-1 to 1-3<br>UL 1581 VW-1<br>UL FT1 |
| Oil resistant according to    | UL 4d100C<br>DIN EN 60811-404                  |
| Halogen free according to     | IEC 60754-1<br>DIN EN 60754-1                  |

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### General

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|      |                                                                                                                                                                                                                                    |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note | CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU<br>* Cables for MOTION-CONNECT 800PLUS. Siemens, MOTION-CONNECT 800PLUS and Siemens article designations are registered trademarks of Siemens AG. |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|