

## Technical data sheet

PUR servo cables · C-track compatible · shielded

### LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Supply line for Bosch Rexroth and other systems

For highest requirements



## Identification

|                            |                                    |
|----------------------------|------------------------------------|
| Type                       | SU+ M (C) PUR SE (4G2,5+2×(2×1,0)) |
| Part No.                   | <a href="#">111279.1000</a>        |
| BOSCH REXROTH designation* | REL0107                            |

## Product version

|                   |    |
|-------------------|----|
| Datasheet version | 01 |
|-------------------|----|

## Use/Application/Properties

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application | <ul style="list-style-type: none"><li>• For IndraDyn S MS2N* system and similar</li><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 full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and 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>• Industrial and salt water resistant</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> |

### United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park  
Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU  
Tel. +44 (0)1827 31333-0  
[www.lutze.com](http://www.lutze.com) • [sales.gb@lutze.co.uk](mailto:sales.gb@lutze.co.uk)

### Germany: Friedrich Lütze GmbH

Postfach 12 24 (PLZ 71366) • Bruckwiesenstraße 17-19 • D-71384 Weinstadt  
Tel. +49 (0)7151 6053-0  
[www.luetze.de](http://www.luetze.de) • [info@luetze.de](mailto:info@luetze.de)

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### Construction

|                                    |                                                                 |
|------------------------------------|-----------------------------------------------------------------|
| Description                        | SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV                        |
| Number of conductors/cross-section | (4G2.5+2×(2×1.0))                                               |
| Number of conductors               | 8                                                               |
| Cross-section, metric              | 2.5 mm <sup>2</sup>                                             |
| Jacket material                    | PUR                                                             |
| Jacket color                       | orange similar to RAL 2003                                      |
| Outer Ø                            | 14.6 mm                                                         |
| Outer Ø                            | 0.583 inch                                                      |
| Surface                            | adhesion-free                                                   |
| Weight                             | 33.9 kg/100 m                                                   |
| Weight                             | 227.8 Lbs/Mft                                                   |
| Cu-Index                           | 22.6 kg/100 m                                                   |
| Cable construction                 | Construction with two control pairs (digit print 5, 6 and 7, 8) |

### Construction Element 1

|                      |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Element construction | 4G2.5                                                              |
| Conductor            | CU-wire bare                                                       |
| Conductor category   | IEC 60228, Class 6<br>Superfinely stranded DIN VDE 0295<br>Class 6 |
| Conductor marking    | According to system manufacturer                                   |
| Conductor insulation | TPE                                                                |

### Construction Element 2

|                      |                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------|
| Element construction | 2×(2×1,0)                                                                                             |
| Conductor            | CU-wire bare                                                                                          |
| Conductor category   | IEC 60228, Class 6<br>Superfinely stranded DIN VDE 0295<br>Class 6                                    |
| Conductor marking    | According to system manufacturer                                                                      |
| Conductor insulation | TPE                                                                                                   |
| Stranding            | Conductors stranded in pairs<br>Layer pitch optimised<br>Conductors twisted without mechanical stress |
| Wrapping             | Foil taping                                                                                           |
| Element shielding    | Braid shield<br>tinned copper wires<br>optical cover approx. 85%                                      |

### Overall construction

|                   |                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------|
| Overall stranding | Elements stranded together<br>Layer pitch optimised<br>Conductors twisted without mechanical stress |
| Overall wrapping  | Non-woven material                                                                                  |

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|                        |                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall shield         | Braid shield<br>Tinned copper wires<br>Optical cover approx. 85 %                                                                              |
| Jacket characteristics | Flame-retardant<br>Oil resistant<br>Grease-resistant<br>Petrol-resistant (alcohol-free)<br>Kerosene-resistant<br>Silicone free<br>Halogen free |

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#### Technical data

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|                               |                                     |
|-------------------------------|-------------------------------------|
| Rated voltage $U_0/U$         | 600/1000 V                          |
| Rated voltage UL              | 1000 V                              |
| Test voltage type             | AC 4000 V                           |
| Temperature range moving      | -25 °C ... +90 °C                   |
| Temperature range fixed       | -40 °C ... +90 °C                   |
| Minimum bending radius moving | $7.5 \times D \leq 16 \text{ mm}^2$ |
| Minimum bending radius fixed  | $5 \times D$                        |
| Bending cycles                | $\geq 10 \text{ Mio}$               |
| Speed                         | $\leq 5 \text{ m/s}$                |
| Acceleration                  | $\leq 50 \text{ m/s}^2$             |
| Torsion                       | $\pm 30^\circ/\text{m}$             |

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#### Technical Data Element 1

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|                                   |                                              |
|-----------------------------------|----------------------------------------------|
| Element construction              | 4G2.5                                        |
| Insulation resistance at 20 °C    | $\geq 1000 \text{ M}\Omega \times \text{km}$ |
| Operating capacitance wire-wire   | approx. 71 pF/m                              |
| Operating capacitance wire-shield | approx. 115 pF/m                             |

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#### Technical Data Element 2

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|                                   |                                         |
|-----------------------------------|-----------------------------------------|
| Element construction              | 2×(2×1,0)                               |
| Insulation resistance at 20 °C    | $1000 \text{ M}\Omega \times \text{km}$ |
| Operating capacitance wire-wire   | approx. 135 pF/m                        |
| Operating capacitance wire-shield | approx. 243 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 |

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|                               |                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------|
| Burning behavior according to | VDE 0482-332-1-2<br>DIN EN 60332-1-2<br>IEC 60332-1-2<br>UL VW1, FT1<br>UL 1581<br>UL 2556 |
| Oil resistant according to    | UL 4d100C<br>DIN EN 60811-404<br>DIN EN 50363-10-2                                         |
| Halogen free according to     | IEC 60754-1<br>DIN EN 60754-1<br>DIN 0472 Part 815                                         |

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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 MS2N motors. Bosch Rexroth and REL article designations are registered trademarks of the Bosch Group. |
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