

# Technical data sheet · LÜTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements



PUR servo cables · C-track compatible · shielded

|                       |          |                                    |
|-----------------------|----------|------------------------------------|
| <b>Identification</b> | Type     | SU+M(C)P SE(4G50+(2×1,5))UL 1KV OR |
|                       | Part-No. | 111428                             |
| SIEMENS designation*  | 1BA50    |                                    |

## Use/Application/Characteristics

|                 |   |
|-----------------|---|
| Application     | <ul style="list-style-type: none"> <li>• Connection cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology</li> <li>• Due to 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>   |
| Characteristics | <ul style="list-style-type: none"> <li>• High active and passive interference resistance (EMC)</li> <li>• Braided shield optimised for continuous flexible use</li> <li>• Very good alternating bending strength</li> <li>• Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant</li> <li>• Hydrolysis-resistant, microbe-resistant, and rot-resistant</li> <li>• Weatherproof, ozone and UV resistant (normal lighting conditions)</li> <li>• Good ruggedness and salt water resistance</li> <li>• Excellent coolant and lubricant resistance</li> <li>• Resistant to most oils, greases, alcohol-free benzines and kerosene</li> <li>• Silicone free</li> <li>• RoHS compliant</li> </ul> |

28.04.2017 – Subject to technical modification

Part-No. 111428

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA  
Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223  
www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park  
Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU  
Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2  
www.lutze.com • sales.gb@lutze.co.uk

# Technical data sheet · LÜTZE SUPERFLEX<sup>®</sup> PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements

## Construction

|                                    |                                    |
|------------------------------------|------------------------------------|
| Description                        | SUPERFLEX+ M (C) PUR SERVO SIEMENS |
| Number of conductors/cross-section | (4G50+(2×1.5))                     |
| Jacket material                    | PUR                                |
| Jacket color                       | orange RAL 2003                    |
| Outer Ø                            | 34.5 mm                            |
| Outer Ø                            | 1.358 inches                       |
| Surface                            | adhesion-free<br>matt              |
| Weight                             | 373.7 kg/100 m                     |
| Weight                             | 2504 Lbs/Mft                       |
| Cu-Index                           | 224 kg/100 m                       |
| Cu-Index                           | 1505 Lbs/Mft                       |

## Element 1

|                            |  |
|----------------------------|--|
| Element construction       | 4G50   |
| Conductor                  | CU-wire bare   |
| Conductor category         | IEC 60228, Class 6<br>Superfinely stranded DIN VDE 0295                    |
| Conductor marking          | black<br>with white print<br>U/L1/C/L+<br>V/L2<br>W/L3/D/L<br>green/yellow |
| Conductor marking standard | DIN EN 50334   |
| Conductor insulation       | Special TPE  |

## Element 2

|                      |  |
|----------------------|--|
| Element construction | (2×1.5)  |
| Conductor            | CU-wire bare   |
| Conductor category   | IEC 60228, Class 6<br>Superfinely stranded DIN VDE 0295<br>class 6 |
| Conductor marking    | black<br>white   |
| Conductor insulation | Special TPE  |
| Stranding            | Conductors stranded in pairs                                       |
| Wrapping             | Foil taping  |

28.04.2017 – Subject to technical modification

Part-No. 111428

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA  
Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223  
www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park  
Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU  
Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2  
www.lutze.com • sales.gb@lutze.co.uk



SYSTEMATIC TECHNOLOGY

# Technical data sheet · LÜTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements

|                             |   |
|-----------------------------|---|
| Element shielding           | Braid shield  |
| <b>overall construction</b> |   |
| Overall stranding           | Elements stranded together  |
| Overall wrapping            | Non-woven material  |
| Overall shield              | Braid shield<br>Tinned copper wires<br>optical cover approx. 85%  |
| Jacket characteristics      | Flame-retardant<br>grease-resistant<br>petrol-resistant (alcohol-free)<br>kerosene-resistant<br>Silicone-free<br>Halogen free |

## Technical data

|                               |                                    |
|-------------------------------|------------------------------------|
| Rated voltage $U_0/U$         | 600/1000 V                         |
| Rated voltage UL              | 1000 V                             |
| Test voltage type             | AC 4000 V                          |
| Temperature range moving      | -25 °C ... +80 °C                  |
| Temperature range fixed       | -40 °C ... +80 °C                  |
| Minimum bending radius moving | $10 \times D \geq 25 \text{ mm}^2$ |
| Minimum bending radius fixed  | $5 \times D$                       |
| Bending cycles                | $\geq 5 \text{ Mio}$               |
| Travel distance               | $\leq 50 \text{ m}$                |
| Speed                         | 25 m/s                             |
| Acceleration                  | 50 m/s <sup>2</sup>                |

### Element 1

|                                   |                    |
|-----------------------------------|--------------------|
| Element construction              | 4G50               |
| Insulation resistance at 20 °C    | 500 M $\Omega$ ·km |
| Operating capacitance Ader-Ader   | 152 pF/m           |
| Operating capacitance wire-shield | 260 pF/m           |

### Element 2

|                                   |                    |
|-----------------------------------|--------------------|
| Element construction              | (2×1.5)            |
| Insulation resistance at 20 °C    | 500 M $\Omega$ ·km |
| Operating capacitance Ader-Ader   | 120 pF/m           |
| Operating capacitance wire-shield | 210 pF/m           |

28.04.2017 – Subject to technical modification

Part-No. 111428

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA

Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223

www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park

Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU

Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2

www.lutze.com • sales.gb@lutze.co.uk



SYSTEMATIC TECHNOLOGY

# Technical data sheet · LÜTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements

## Approvals/Standards

|                               |   |
|-------------------------------|---|
| Approvals                     | cURus   |
| UL style                      | AWM 21223   |
| Conformity                    | CE<br>RoHS<br>REACH   |
| Burning behavior according to | IEC 60332-1<br>DIN EN 60332-1-2<br>VDE 0482 322-1-2<br>UL 1581 Part 1080 VW-1<br>UL FT1 |
| Halogen free according to     | DIN EN 60754-1<br>IEC 60754-1   |

## General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

## Symbols



28.04.2017 – Subject to technical modification

Part-No. 111428

USA: LUTZE INC.

13330 South Ridge Drive • Charlotte, NC 28273, USA  
Tel. +1 (704) 504-0222 • Fax +1 (704) 504-0223  
www.lutze.com • info@lutze.com

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park  
Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU  
Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2  
www.lutze.com • sales.gb@lutze.co.uk



SYSTEMATIC TECHNOLOGY