

## Technical data sheet

PUR control cables · C-track compatible · shielded

### LUTZE SUPERFLEX® PLUS 3100 (C) PUR

For highest requirements



#### Identification

Type SU+ 3100 (C) PUR 4G1,0  
Part No. [113088](#)

#### Product version

Datasheet version 02

#### Use/Application/Properties

- |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application | <ul style="list-style-type: none"><li>• Machine and device construction, transport and conveyor technology, heating and climate technology</li><li>• In areas with high concentrations of people or material assets, where corrosive gases need to be avoided in the event of fire</li><li>• As a monitoring, measurement and control cable for industrial applications</li><li>• Especially for harsh environments</li><li>• For installation in energy chains with constant linear movement</li></ul>                                                                                                                                                                                                                                    |
| Properties  | <ul style="list-style-type: none"><li>• Reduced friction due to very smooth conductor insulation (HGI) for high mechanical loads</li><li>• Low capacitance, very good electrical properties</li><li>• Flame-retardant, self-extinguishing</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> |

#### Construction

Description SUPERFLEX® PLUS 3100 (C) PUR  
Number of conductors/cross-section (4G1,0)  
Number of conductors 4

#### 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](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 • Fax +49 (0)7151 6053-277(-288)  
[www.luetze.de](http://www.luetze.de) • [info@luetze.de](mailto:info@luetze.de)

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|                       |                          |
|-----------------------|--------------------------|
| Cross-section, metric | 1 mm <sup>2</sup>        |
| Jacket material       | PUR                      |
| Jacket color          | grey similar to RAL 7001 |
| Outer Ø               | 8.4 mm                   |
| Weight                | 10.4 kg/100 m            |
| Weight                | 69.88 Lbs/Mft            |
| Cu-Index              | 5.9 kg/100 m             |

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### Construction Element 1

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|                      |                                                                                                          |
|----------------------|----------------------------------------------------------------------------------------------------------|
| Element construction | (4G1,0)                                                                                                  |
| Conductor            | CU-wire bare                                                                                             |
| Conductor category   | DIN EN 60228, Class 6<br>IEC 60228, Class 6<br>DIN EN 13602                                              |
| Conductor marking    | black · with white number print · green/yellow                                                           |
| Conductor insulation | TPE                                                                                                      |
| Stranding            | conductors layered construction<br>conductors twisted without mechanical stress<br>layer pitch optimised |

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### Overall construction

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|                   |                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------|
| Overall stranding | conductors layered construction<br>conductors twisted without mechanical stress<br>layer pitch optimised |
| Overall wrapping  | Non-woven material                                                                                       |
| Inner jacket      | TPE                                                                                                      |
| Overall shield    | Braid shield<br>tinned copper wires<br>optical cover approx. 85 %                                        |

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### Technical data

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|                                 |                     |
|---------------------------------|---------------------|
| Rated voltage U <sub>0</sub> /U | 300/500V            |
| Rated voltage UL                | 300 V               |
| Test voltage type               | 3000 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                    | 10 m/s <sup>2</sup> |
| Torsion cycles                  | ≥ 1 Mio             |
| Torsion                         | ± 30°/m             |
| Speed of torsion                | 60 °/s              |
| Acceleration of torsion         | 30 °/s <sup>2</sup> |

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### Technical Data Element 1

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|                                   |           |
|-----------------------------------|-----------|
| Element construction              | (4G1,0)   |
| Insulation resistance at 20 °C    | 100 MΩ×km |
| Conductor resistance              | 19.5 Ω/km |
| Operating capacitance wire-wire   | 78 pF/m   |
| Operating capacitance wire-shield | 117 pF/m  |

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### Certifications/Standards

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|                               |                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------|
| Certifications                | cURus                                                                                           |
| UL style                      | AWM 21209                                                                                       |
| Conformity                    | CE<br>RoHS<br>REACH                                                                             |
| Burning behavior according to | VDE 0482-332-1-2<br>DIN EN 60332-1-2<br>IEC 60332-1<br>UL 1581 part VW-1 Flame Test<br>CSA FT 1 |
| Oil resistant according to    | Oil Res II                                                                                      |
| 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 |
|------|----------------------------------------------------------------------------------|