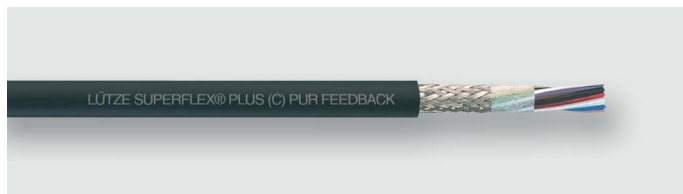


## Technical data sheet

PUR feedback cables · C-track compatible

**LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK**  
Feedback cables for Heidenhain and other systems  
For highest requirements in drive technology



### Identification

Type SU+ (C) PUR FB (4×0,5+4×2×0,14+(4×0,14))  
Part No. [111418](#)

### Product version

Datasheet version 02

### Use/Application/Properties

- |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application | <ul style="list-style-type: none"><li>• Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor</li><li>• Through full PUR jacket and TPE 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> |

### Construction

|                                    |                                  |
|------------------------------------|----------------------------------|
| Description                        | SUPERFLEX® PLUS (C) PUR FEEDBACK |
| Number of conductors/cross-section | (4×0.5+4×2×0.14+(4×0.14))        |
| Number of conductors               | 16                               |
| Cross-section, metric              | 0.5 mm <sup>2</sup>              |
| Jacket material                    | PUR                              |

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|              |                           |
|--------------|---------------------------|
| Jacket color | black similar to RAL 9005 |
| Outer Ø      | 8.6 mm                    |
| Surface      | adhesion-free             |
| Weight       | 12.3 kg/100 m             |
| Cu-Index     | 6 kg/100 m                |

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#### Construction Element 1

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|                      |                                                                       |
|----------------------|-----------------------------------------------------------------------|
| Element construction | 4×0.5                                                                 |
| 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 | Special TPE                                                           |
| Stranding            | Layer pitch optimised<br>Conductors twisted without mechanical stress |

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#### Construction Element 2

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|                      |                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------|
| Element construction | 4×2×0.14                                                                                              |
| 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 | Special TPE                                                                                           |
| Stranding            | Conductors stranded in pairs<br>Layer pitch optimised<br>Conductors twisted without mechanical stress |

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#### Construction Element 3

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|                      |                                                                       |
|----------------------|-----------------------------------------------------------------------|
| Element construction | (4×0.14)                                                              |
| 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 | Special TPE                                                           |
| Stranding            | Layer pitch optimised<br>Conductors twisted without mechanical stress |
| Element shielding    | Spiral shield<br>optical cover approx. 95 %<br>tinned copper wires    |

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#### Overall construction

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

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## Technical data sheet

### PUR feedback cables · C-track compatible

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|                        |                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall wrapping       | Non-woven material                                                                                                                             |
| 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                 | 300 V                |
| Test voltage type             | AC 2000 V            |
| Temperature range moving      | -25 °C ... +80 °C    |
| Temperature range fixed       | -40 °C ... +80 °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              | 4×0.5           |
| Insulation resistance at 20 °C    | ≥200 MΩ×km      |
| Operating capacitance wire-wire   | approx.61 pF/m  |
| Operating capacitance wire-shield | approx.110 pF/m |

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#### Technical Data Element 2

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|                                   |            |
|-----------------------------------|------------|
| Element construction              | 4×2×0.14   |
| Insulation resistance at 20 °C    | ≥200 MΩ×km |
| Operating capacitance wire-wire   | 104        |
| Operating capacitance wire-shield | 188 pF/m   |

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#### Technical Data Element 3

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|                                   |            |
|-----------------------------------|------------|
| Element construction              | (4×0.14)   |
| Insulation resistance 20 °C       | ≥200 MΩ×km |
| Operating capacitance wire-wire   | 147 pF/m   |
| Operating capacitance wire-shield | 270 pF/m   |

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#### Certifications/Standards

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|                |           |
|----------------|-----------|
| Certifications | cURus     |
| UL style       | AWM 20233 |

## Technical data sheet

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|                               |                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------|
| 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 |
| Oil resistant according to    | DIN EN 60811-404<br>UL 1581                                                             |
| Halogen free according to     | DIN EN 60754-1<br>IEC 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 |
|------|----------------------------------------------------------------------------------|