

## Technical data sheet

TPE Control Cable · shielded

### LUTZE MOTIONFLEX® (C) TRAY-ER TPE

Flexing Control Cable for Linear and Twisting Motion Application



#### Identification

Type MO (C) TRAY-ER TPE (12×AWG14)  
Part No. [A4211412](#)

#### Product version

Datasheet version 00

#### Use/Application/Properties

- |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application | <ul style="list-style-type: none"><li>• Shielded multi-conductor cable suitable for continuous motion applications with repetitive movement, linear flexing, and torsional stress</li><li>• Compatible with all major drag chain brands</li><li>• Compliant with NFPA 79 for wiring of industrial machinery</li><li>• TC-ER for use with cable trays without conduit, which can reduce material and labor costs</li><li>• WTTC – wind turbine tray cable rating for use in wind power generation</li><li>• Dry, damp or wet conditions</li></ul>                                                     |
| Properties  | <ul style="list-style-type: none"><li>• Highly flexible conductor design</li><li>• Specially formulated jacket for oil resistance</li><li>• Easy strip design</li><li>• Cutting oil resistant - mineral and bio/vegetable based oil, specially tested with plant based cutting oil.</li><li>• Ecolab certified resistance to common cleaning agents and chemicals used in food and beverage washdown procedures</li><li>• Crush impact resistant</li><li>• Gas/vapor-tight sheath per UL 1277</li><li>• Sunlight resistant</li><li>• Flame-retardant</li><li>• Talc free and silicone free</li></ul> |

#### Construction

Number of conductors/cross-section (12×AWG14)  
Number of conductors 12  
Cross-section, metric 2.5 mm<sup>2</sup>

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SYSTEMATIC TECHNOLOGY

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|                   |                |
|-------------------|----------------|
| Cross-section AWG | AWG 14         |
| Jacket material   | TPE            |
| Jacket color      | black RAL 9005 |
| Outer Ø           | 15.9 mm        |
| Outer Ø           | 0.625 inch     |
| Weight            | 307 Lbs/Mft    |
| Cu-Index          | 191 Lbs/Mft    |

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#### Construction Element 1

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|                        |                                                |
|------------------------|------------------------------------------------|
| Conductor construction | AWG 14 (104/34)                                |
| Conductor              | AWG conductor<br>CU-wire bare                  |
| Conductor category     | fine wire                                      |
| Conductor marking      | black · with white number print · green/yellow |
| Conductor insulation   | PVC/Nylon                                      |

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#### Overall construction

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|                        |                                                                               |
|------------------------|-------------------------------------------------------------------------------|
| Overall shield         | Braid shield<br>tinned copper wires<br>optical cover approx. 80 %             |
| Jacket characteristics | Flame-retardant<br>Silicone-free<br>UV resistant (normal lighting conditions) |

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#### Technical data

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|                               |                            |
|-------------------------------|----------------------------|
| Rated voltage $U_N$           | 600 V TC-ER<br>1000 V WTTC |
| Temperature range moving      | -5 °C ... +90 °C           |
| Temperature range fixed       | -40 °C ... +105 °C         |
| Minimum bending radius moving | 12×D                       |
| Minimum bending radius fixed  | 6×D                        |
| Torsion                       | ± 130°/m                   |

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#### Certifications/Standards

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|                |                                                                                                                                                                                        |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certifications | UL Type TC-ER<br>cURus<br>cULus<br>WTTC<br>Meets NEC 336,392<br>Class I and II, Div. 2 and Class I<br>Zone 2 per NEC 501, 502, 505<br>C(UL) TC and CIC FT4<br>UL 1277<br>REACH<br>RoHS |
| UL style       | AWM 21270                                                                                                                                                                              |

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|----------------------------|-----------------------------|
| Conformity                 | CE<br>RoHS<br>REACH<br>TSCA |
| Oil resistant according to | Oil Res I<br>Oil Res II     |

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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 |
|------|----------------------------------------------------------------------------------|