

## Technical data sheet

TPE Control Cable · unshielded

### LUTZE MOTIONFLEX® TRAY-ER TPE

Flexing Control Cable for Linear and Twisting Motion Application



#### Identification

Type MO TRAY-ER TPE 3×AWG18  
Part No. [A4221803](#)

#### Product version

Datasheet version 00

#### Use/Application/Properties

- |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application | <ul style="list-style-type: none"><li>• 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

|                                    |                               |
|------------------------------------|-------------------------------|
| Description                        | LUTZE MOTIONFLEX® TRAY-ER TPE |
| Number of conductors/cross-section | 3×AWG18                       |
| Number of conductors               | 3                             |

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07.07.2023 • Subject to technical modification

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|                       |                           |
|-----------------------|---------------------------|
| Cross-section, metric | 1 mm <sup>2</sup>         |
| Cross-section AWG     | AWG 18                    |
| Jacket material       | TPE                       |
| Jacket color          | black similar to RAL 9005 |
| Outer Ø               | 7.2 mm                    |
| Outer Ø               | 0.284 inch                |
| Weight                | 46 Lbs/Mft                |
| Cu-Index              | 16 Lbs/Mft                |

#### Construction Element 1

|                        |                                                |
|------------------------|------------------------------------------------|
| Conductor construction | AWG 18 (41/34)                                 |
| Conductor              | AWG conductor<br>CU-wire bare                  |
| Conductor category     | fine wire                                      |
| Conductor marking      | black · with white number print · green/yellow |
| Conductor insulation   | PVC/Nylon                                      |

#### Overall construction

|                        |                                                                               |
|------------------------|-------------------------------------------------------------------------------|
| Jacket characteristics | Flame-retardant<br>Silicone-free<br>UV resistant (normal lighting conditions) |
|------------------------|-------------------------------------------------------------------------------|

#### Technical data

|                               |                            |
|-------------------------------|----------------------------|
| Rated voltage U <sub>N</sub>  | 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 | 10×D                       |
| Minimum bending radius fixed  | 4×D                        |
| Torsion                       | ± 180°/m                   |

#### Certifications/Standards

|                |                                                                                                                                                                                        |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                                                              |
| Conformity     | CE<br>RoHS<br>REACH<br>TSCA                                                                                                                                                            |

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