

Technical data sheet

TPE Control Cable · shielded

LUTZE MOTIONFLEX® M (C) TPE, Shielded Flexing Motor Cable for Linear and Twisting Motion Application



Identification

Type MO M (C) TPE (4×AWG14)
Part No. [A4061404](#)

Product version

Datasheet version 00

Use/Application/Properties

- Application
- Shielded motor supply cable to connect power to 3-phase motors. VFD's and Servo Drives
 - Suitable for motion application with repetitive movement, flexing and torsional stress
 - Thermoset XLPE offering superior overload and short-circuit temperature
 - Compliant with NFPA 79 for wiring of industrial machinery
 - TC-ER for use with cable trays without conduit, which can reduce installation costs in industrial environments
 - WTTC – wind turbine tray cable rating for use in wind power generation
 - Dry, damp or wet conditions
- Properties
- Highly flexible XLPE conductor design
 - Reduced cable diameter
 - High insulation resistance
 - Low-capacitance cable
 - Cutting oil resistant - mineral and bio/vegetable based oil, specially tested with plant based cutting oil.
 - Ecolab certified resistance to common cleaning agents and chemicals used in food and beverage washdown procedures
 - Improved oil resistance due to specifically developed TPE jacket
 - Crush impact resistant
 - Gas/vapor-tight sheath per UL 1277
 - Sunlight resistant
 - Flame-retardant
 - Talc free and silicone free

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SYSTEMATIC TECHNOLOGY

Technical data sheet

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Construction

Description	LUTZE MOTIONFLEX® M (C) TPE
Number of conductors/cross-section	(4×AWG14)
Number of conductors	4
Cross-section, metric	2.5 mm ²
Cross-section AWG	AWG 14
Jacket material	TPE
Jacket color	black similar to RAL 9005
Outer Ø	11.4 mm
Outer Ø	0.45 inch
Weight	20.81 kg/100 m
Weight	140 Lbs/Mft
Cu-Index	76 Lbs/Mft

Construction Element 1

Element construction	AWG14/4C
Conductor construction	AWG 14 (104/34)
Conductor	AWG conductor CU-wire bare
Conductor category	fine wire
Conductor marking	black · with white number print · green/yellow
Conductor insulation	XLPE XHHW-2 Wet/Dry
Wrapping	Non-woven material

Overall construction

Overall stranding	conductors layered construction
Overall shield	Braid shield tinned copper wires optical cover approx. 85 %
Jacket characteristics	Oil resistant Silicone-free Flame-retardant

Technical data

Rated voltage U _N	600 V TC-ER 90C 1000 V 90C Flexible Motor Supply 1000 V WTTC 90C Cable, 1000 V 105C AWM
Temperature range moving	-15 °C ... +80 °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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Technical Data Element 1

Element construction AWG14/4C

Certifications/Standards

Certifications UL Flexible Motor Supply Cable
TC-ER
WTTTC
Meets NEC 336,392
Class I and II, Div. 2 and Class I
Zone 2 per NEC 501, 502, 505
C(UL) TC and CIC FT4
UL 1277

UL style AWM 21270

Conformity CE
RoHS
REACH
TSCA

Oil resistant according to Oil Res I
Oil Res II

General

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