1020060	DATA SHEET	LAPP
valid from: 01.08.2024	ÖLFLEX® SERVO 719	

Application

ÖLFLEX® SERVO 719 cables are low capacitance servo motor cables, designed for the European, North American and Canadian market, for occasional flexible use and fixed installation subject to normal mechanical load conditions.
They are among others designed for use in dry, damp and wet conditions.
Outdoor use: They may only be installed considering the indicated temperature range. At room temperature they are widely resistant against acids, caustic solutions and certain oils. They are suitable for non-continuously recurring movement without tensile load. Continuous operational movements, restricted guidance, usage of these cables in moving cable carriers or on motor drum guidance or under a strain of more than 15 N/mm² are not allowed. The data pairs are additionally screened.

Application range:
Connecting cable between servo controller and motor, plant engineering, machine tools and printing units.

Use acc. to : External interconnection or internal wiring of electronic equipment.
Use acc. to : Cables for internal wiring or external interconnection with or without mechanical abuse.

Design

Design	according to UL 758, AWM Style 2570 and based on EN 50525-2-51
Certification	UL AWM Style 2570 (File No. E63634) AWM I A/B II A/B (File No. E63634)
Conductor	fine wire strands of bare copper acc. to IEC 60228 resp. EN 60228, Class 5 0.34mm²: 19x0.15
Insulation	Polypropylen based compound
Core identification code	Power cores: 4-cores version: black cores with white alphanumeric labelling U/L1/C/L+; V/L2; W/L3/D/L-; GN/YE ground conductor 5-cores version: coloured cores acc. to VDE 0293-308 resp. HD 308 S2 with GN/YE ground conductor 7-cores version: black cores with white numbers 1-6 acc. to EN 50334 with GN/YE ground conductor Control cores: with 1 control pair: white, black with 2 control pairs: 0.34 mm²: DIN 47100 (WH; BN; GN; YE) > 0.75 mm²: black cores with white numbers 5-8 acc. to EN 50334 Control pairs with different conductor cross-sections: 1 mm²: black cores with white numbers 5-6 1.5 mm²: black cores with white numbers 7-8 Pair shield: with 1 control pair: Braid of tinned copper wires, coverage = 85 % (nominal value) with 2 control pairs: Aluminium-laminated foil, drain wire, braid of tinned copper wires, coverage = 85 % (nominal value)
Stranding	power cores (optionally with 1 resp. 2 control pairs) stranded together (optionally with filler)
Outer sheath	PVC based compound (UL/CSA 80 °C rating) Colour: black, similar RAL 9005

Electrical properties at 20 °C

Nominal voltage	EN U_0/U: 600/1000 V
Rated voltage	UL/CSA: 1000 V
Test voltage	Core/Core: 4000 V AC Core/Pair screen: 4000 V AC

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x outer diameter fixed installation: 6 x outer diameter

Temperature range	occasional flexing (EN): -5 °C up to +70 °C max. conductor temp. occasional flexing (UL/CSA): -5 °C up to +80 °C max. conductor temp. fixed installation (EN): -40 °C up to +80 °C max. conductor temp. fixed installation(UL/CSA): up to +80 °C max. conductor temp.
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: Vertical flame test VW-1 acc. to UL 1581, Section 1080 CSA: FT1 acc. to CSA C22.2 No. 2556 § 9.3
UV resistance	acc. to EN 50525-1 cable with black sheath are suitable for permanent outdoor use. acc. to EN 50618 acc. to EN 50620 acc. to EN ISO 4892-2-2013, method A (change of colour allowed)
Oil resistance	acc. to EN 50290-2-22, TM54
Tests	acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396, UL 1581 and CSA C22.2 No. 210
General requirements	These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive)
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).