1020010	DATA SHEET	LAPP
valid from: 01.08.2024	ÖLFLEX® SERVO 719 CY	

Application

ÖLFLEX® SERVO 719 CY cables are low capacitance, screened 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 areas.
Outdoor use: They may only be installed with UV protection and considering the 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 screen is a protection against electrical interference, the data pairs are additionally screened.

Application range:
Connecting cable between frequency converter and motor, 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	acc. 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: black cores with white alphanumeric labelling U/L1/C/L+; V/L2; W/L3/D/L- with GN/YE ground conductor Control cores: with 1 control pair: white; black white; brown for following art.: 1020041, 1020042, 1020043, 1020047, 1020048, 1020049, 1020050 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 Triplet: black cores with white numbers 1-3 acc. to EN 50334
Stranding	4 power cores (optionally with 1 resp. 2 signal pairs, triplet) stranded together (optionally with filler)
Screen	Pair shield /triplet shield: with 1 control pair: braid of tinned copper wires, coverage = 85 % (nominal value) For art. no.: 1020041, 1020042, 1020043, 1020047, 1020048, 1020049, 1020050: aluminium-laminated foil, drain wire, braid of tinned copper wires, coverage = 85 % (nominal value) with 2 control pairs + triplet: Aluminium-laminated foil, drain wire, braid of tinned copper wires, coverage = 85 % (nominal value) Overal screen: braid of tinned copper wires, coverage = 85 % (nominal value)
Outer sheath	PVC based compound (UL/CSA 80 °C rating) Colour: orange, similar RAL 2003

Electrical properties at 20 °C

Transfer impedance	max. 250 mΩ/m (at 30 MHz)
Nominal voltage	EN U_0/U: 600/1000 V
Rated voltage	UL/CSA: 1000 V

Test voltage	Core/Core: 4000 V AC Core/Screen: 4000 V AC Pairscreen /overal screen: 500 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
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).