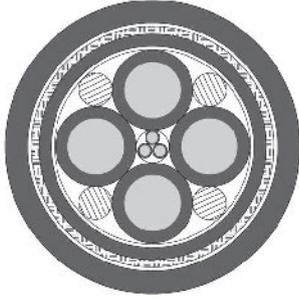


TOPSERV® 139 low capacitance, PUR, high flexible drag chain servo cable, EMC-preferred, 3 control cores



Technical data

- **Temperature range**
flexing -5°C to +80°C
fixed installation -40°C to +80°C
- **Nominal voltage**
acc. to VDE U₀/U₃₀₀/500 V
acc. to UL 600 V
- **AC test voltage**, 50 Hz
power supply cores 4000 V
control cores 1000 V
- **Insulation resistance**
min. 20 MΩm/km
- **Mutual capacitance**
core/core approx. 70 nF/km
core/screen approx. 110 nF/km
- **Coupling resistance**
max. 250 Ωm/km
- **Minimum bending radius**
approx. 10x cable Ø

Cable construction

- Bare copper, extra fine wire conductor to DIN VDE 0295 cl. 6 and IEC 60228 cl. 6
- Polypropylene core insulation
- Power supply cores black with imprint U1, V2, W3
- Green-yellow earth core
- Control cores white, brown, green
- 7 cores stranded around centre with short lay-lengths
- Fleece wrapping facilitates sliding
- Inner sheath of special PVC
- Tinned copper braid overall screening, visible coverage approx. 85%
- PUR outer sheath
- Sheath colour orange RAL 2003 according to DESINA®

Part no. 74691

- Construction as above, but
- 3 cores 0.5 mm² stranded together
- Polyester foil wrapping
- Bundles screened with tinned copper braid, min. coverage 85%
- Polyester foil wrapping over that

Properties

- PUR outer sheath: low adhesion, extremely abrasion resistant, halogen-free, resistant to UV, oil, hydrolysis and microbial attack
- Optimum compliance with requirements for electromagnetic compatibility (EMC) by approx. 85% coverage from the braided screen
- The use of polypropylene for core insulation means that thanks to the reduction in cable-related losses these low capacitance motor cables can have longer cable lengths between the converter and the motor than with comparable cables with PVC insulation

Note

- For extreme applications extending beyond standard solutions we recommend that you request our questionnaire, which has been especially designed for energy supply systems.
- Please observe applicable installation regulations for use in energy supply chains.
- Desina®: Explanation: see introduction.

Application

The combination of feeder cores with the cores and the thermal protection in these cables is ideal. Precision servomotors, as used today in many areas of highly-automated manufacturing processes, call for high-quality, reliable and long-lasting cables. These requirements are met to a high degree by these cables. The cables have an additional overall screen to ensure EMC compatibility, i.e. for protection against electromagnetic interference. They are manufactured based on specifications from leading manufacturers of servo drives and control systems, as well as in compliance with various VDE standards. They are used in the construction of machinery, plants and robots, and in automation, drives, control and production engineering, and in assembly equipment.

EMC = Electromagnetic compatibility

To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

without UL/CSA approval

Part No.	No. cores x cross-sec. mm ²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
70477	(4 x 1,5 + 3 x 0,5)	13,4	101,4	223,0	16
74691	(4 x 1,5 + 3 x 0,5)	14,2	119,8	255,0	16
70798	(4 x 2,5 + 3 x 0,5)	14,0	165,0	302,0	14
77771	(4 x 2,5 + 3 x 1,0)	14,2	180,0	320,0	14
77772	(4 x 4,0 + 3 x 1,0)	15,5	260,0	420,0	12
77773	(4 x 6,0 + 3 x 1,0)	16,5	389,0	540,0	10
700450	(4 x 10,0 + 3 x 1,5)	22,4	625,0	925,0	8
700451	(4 x 16,0 + 3 x 1,5)	25,2	904,0	1226,0	6
700452	(4 x 25,0 + 3 x 1,5)	28,0	1323,0	1595,0	4
700453	(4 x 35,0 + 3 x 1,5)	31,0	1621,0	2196,0	2
700454	(4 x 50,0 + 3 x 1,5)	36,0	2585,0	2985,0	1

with UL/CSA approval

Part No.	No. cores x cross-sec. mm ²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
72334	(4 x 1,5 + 3 x 0,5)	13,4	101,4	223,0	16
77774	(4 x 2,5 + 3 x 1,0)	14,2	180,0	320,0	14
77775	(4 x 4,0 + 3 x 1,0)	15,5	260,0	420,0	12
77776	(4 x 6,0 + 3 x 1,0)	16,5	389,0	540,0	10
700455	(4 x 10,0 + 3 x 1,5)	22,4	625,0	925,0	8
700456	(4 x 16,0 + 3 x 1,5)	25,2	904,0	1226,0	6
700457	(4 x 25,0 + 3 x 1,5)	28,0	1323,0	1595,0	4
700458	(4 x 35,0 + 3 x 1,5)	31,0	1621,0	2196,0	2
700459	(4 x 50,0 + 3 x 1,5)	36,0	2585,0	2985,0	1

Dimensions and specifications may be changed without prior notice.