

TOPSERV® 110/120 PUR servo cable with 1 or 2 signal pairs 0,6/1kV, high flexible, cable for drag chain, EMC preferred type



Technical data	Cable structure	Properties
Special-PUR drag chain cable adapted to DIN VDE 0295, 0550, DIN VDE 0285-525-1-1 /DIN EN 50525-1	Bare copper-conductor, to DIN VDE 0295 cl. 6, extra fine-wire	low capacitance by using PP as core insulation
Temperature range	Core insulation of halogen-free PP	PUR-outer sheath low adhesion, resistant to hydrolysis and microbial attack, halogen-free
flexing -30°C to + 80°C	Core identification	These highly flexible cables are fitted with an additional overall screen to assure EMC compatibility, i.e. the protection against electromagnetic interference
fixed installation -40°C to +80°C	<b>power supply cores</b>	The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers
Nominal voltage	core 1: black with imprint U/L1/C/L+	
power supply cores U <sub>0</sub> /U 600/1000 V	core 2: black with imprint V/L2	
control cores U <sub>0</sub> /U 300/500 V	core 3: black with imprint W/L3/D/L-	
Test voltage	<b>control cores</b>	
power supply cores 4000 V	TOPSERV® 110	
control cores 1000V	core 1 black with imprint BR1	
Power rating	core 2 black with imprint BR2	
to DIN VDE 0298 part 4	TOPSERV® 120	
Insulation resistance	pair 1: black with number no. BR1	<b>Note</b>
min. 20 MOhm x km	pair 2: black with number no. BR2	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. AWG sizes are approximate equivalent values. The actual cross-section is in mm².
Minimum bending radius	GN-YE conductor	Servo-cable and Feedback-cable
flexing 10x cable Ø	Screening of the control cores in pairs,	<b>with UL-approval</b> to e.g. Siemens, Bosch Rexroth, Lenze etc. can be found in chapter N ...
fixed installation 5x cable Ø	tinned drain wire and tinned Cu braid	
Coupling resistance	Control cores stranded in pairs and laid up in layer together with the power supply cores	
max. 250 Ohm/km	Foil wrapping	
	Overall screening of tinned Cu braid, visible coverage min. 85%	
	Fleece wrapping	
	Outer sheath of PUR	
	Sheath colour petrol (RAL 5018)	

## Application

The combination of feeder cores with the control cores for the braking function 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 as is the electromagnetic compatibility (EMC). These cables can also be used as drag chain cables. Manufacturing is based on specifications from renowned manufacturers of servo-actuators and servo-controls as well as in accordance with diverse VDE standards. Application for system SIMODRIVE.

EMC = Electromagnetic compatibility

To optimize 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 2006/95/EC.

## TOPSERV® 110 (1 pair screened and overall screening)

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg/km	Weight approx. kg/km	AWG-No.
71491	(4 G 1,5 + (2 x 1,0))	11,5	139,0	211,0	16
71493	(4 G 2,5 + (2 x 1,0))	13,6	188,0	273,0	14
71705	(4 G 4 + (2 x 1,0))	14,6	260,0	352,0	12
71706	(4 G 6 + (2 x 1,0))	16,0	360,0	500,0	10
71707	(4 G 10 + (2 x 1,0))	20,2	590,0	753,0	8
71708	(4 G 16 + (2 x 1,0))	23,8	845,0	1061,0	6
71709	(4 G 25 + (2 x 1,0))	27,0	1320,0	1499,0	4
71710	(4 G 35 + (2 x 1,0))	31,9	1840,0	1992,0	2
71711	(4 G 50 + (2 x 1,0))	36,7	2530,0	2880,0	1

## TOPSERV® 120 (2 pairs individually screened and overall screening)

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg/km	Weight approx. kg/km	AWG-No.
71990	(4 G 1,5 + 2 x (2 x 1,0))	12,6	186,0	242,0	16
71991	(4 G 2,5 + 2 x (2 x 1,0))	15,0	231,0	316,0	14
71992	(4 G 4 + 2 x (2 x 1,0))	16,0	308,0	415,0	12
71993	(4 G 6 + 2 x (2 x 1,0))	18,2	420,0	574,0	10
71994	(4 G 10 + 2 x (2 x 1,0))	22,8	647,0	805,0	8
71995	(4 G 16 + 2 x (2 x 1,0))	25,0	918,0	1122,0	6
71996	(4 G 25 + 2 x (2 x 1,0))	27,7	1400,0	1584,0	4
72106	(4 G 35 + 2 x (2 x 1,0))	32,0	1882,0	2185,0	2
71997	(4 G 50 + 2 x (2 x 1,0))	37,0	2574,0	2977,0	1