# TOPSERV® 121 PUR PUR, high flexible servo cable

## for drag chain with 2 Signal pairs according to Indramat-Standard INK





#### **Technical data**

- Special PUR drag chain cable acc. to UL AWM Style 20234 and CSA AWM
- Temperature range flexing -30 °C to +80 °C fixed installation -40 °C to +80 °C
- Nominal voltage
  acc. to UL/CSA 1000 V
  acc. to VDE
  power supply cores U<sub>0</sub>/U 600/1000 V
  control cores U<sub>0</sub>/U 300/500 V
- A.c. test voltage, 50 Hz power supply cores 4000 V control cores 1000 V
- Insulation resistance min. 20 Ohm x km
- Coupling resistance max. 250 Ohm/km
- Minimum bending radius flexing approx. 7,5x cable Ø fixed installation approx. 4x cable Ø



#### **Cable structure**

- Bare copper, ultrafine wire conductors acc. to DIN VDE 0295 Kl. 6 bzw. IEC 60228 cl. 6
- core insulation Polypropylen until 6mm²
- Black power supply cores with white imprint
- Green-yellow earth core
- Black control cores with white imprint
- Screening of the control cores in pairs wrapped with plastic aluminium foil, copper drain-wire tinned and tinned copper braided screening, approx. coverage 85%
- Control cores stranded in pairs and laid up in layers together with the power supply cores with optimal lay length and stabilising filler
- Overall screening from tinned copper braid, optimal. coverage approx. 85%
- PUR outer sheath
- Sheath colour orange (RAL 2003) according to DESINA®
- with meter marking, change-over in 2011

### **Properties**

- low capacitance
- PUR outer sheath: low adhesion, extremely abrasion resistant, halogen-free, resistant to UV-, oil-, hydrolysis and microbial attack
- PUR sheath: self-extinguishing and flame retardant, test method B acc. to DIN VDE 0472 part 804 and IEC 60332-1
- Optimum compliance with requirements for electromagnetic compatibility (EMC) by approx. 85% coverage from the braided screen
- These cables are produced to high quality specifications and conform to the DESINA®-standard
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

#### Note

- the corresponding Encoder cables can be found under TOPGEBER® 512 PUR
- the Servocables for stativ application oder occasional movements can be found under TOPSERV® 119 PVC.
- Indramat Artikelbezeichnungen INK sind eingetragene Warenzeichen der Bosch Rexroth AG und dienen nur zu Vergleichszwecken

#### Application

The combination of supply 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 by these cables. The cables have an additional overall screen to ensure EMC compatibility, i.e. for protection against electromagnetic interference. Production is based on the specifications of established manufacturers of servo-drives and controls, as well as on various VDE, UL and CSA standards. Applications include machine, plant and robot construction, automation, drive, control and production engineering.

Attractive for export-oriented mechanical and system engineering.

Please observe applicable installation regulations for use in energy supply chains.

**EMC** = Electromagnetic compatibillity

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 2006/95/EG.

Part no.	No.cores x cross-sec. mm <sup>2</sup>	for system	OEM Part no.	Jacket colour	Outer Ø approx. mm	Cop. weight kg/km	Weight approx. kg/km	AWG-No.
706003	( 4 G 0,75 + (2 x 0,5))	Indramat	INK-0670	Orange RAL 2003	10,0	77,0	166,0	17
73774	( 4 G 1 + 2 x (2 x 0,75))	Indramat	INK-0653	Orange RAL 2003	11,5	148,0	254,0	17
76103	( 4 G 1,5 + 2 x (2 x 0,5))	-	-	Orange RAL 2003	12,4	145,0	250,0	17
73579	( 4 G 1,5 + 2 x (2 x 1,0))		-	Orange RAL 2003	12,6	182,0	262,0	16
700561	( 4 G 1,5 + 2 x (2 x 0,75))	Indramat	INK-0650	Orange RAL 2003	12,2	170,0	290,0	16
73580	( 4 G 2,5 + 2 x (2 x 1,0))	Indramat	INK-0602	Orange RAL 2003	14,6	229,0	336,0	14
78955	( 4 G 2,5 + 2 x (2 x 1,5))	-		Orange RAL 2003	15,6	241,0	350,0	14
74094	( 4 G 4 + 2 x (2 x 1,0))			Orange RAL 2003	16,2	312,0	475,0	12
700562	( 4 G 4 + (2 x 1,0) + (2 x 1,5))	Indramat	INK-0603	Orange RAL 2003	16,0	318,0	485,0	12
78956	( 4 G 4 + 2 x (2 x 1,5))		-	Orange RAL 2003	16,7	324,0	490,0	12
74095	( 4 G 6 + 2 x (2 x 1,0))	-	-	Orange RAL 2003	18,2	437,0	606,0	10
700563	( 4 G 6 + (2 x 1,0) + (2 x 1,5))	Indramat	INK-0604	Orange RAL 2003	18,8	445,0	615,0	10
78957	( 4 G 6 + 2 x (2 x 1,5))	-	-	Orange RAL 2003	19,0	450,0	621,0	10
74096	( 4 G 10 + 2 x (2 x 1,0))			Orange RAL 2003	21,5	609,0	905,0	8
700564	( 4 G 10 + (2 x 1,0) + (2 x 1,5))	Indramat	INK-0605	Orange RAL 2003	22,4	610,0	915,0	8
78958	( 4 G 10 + 2 x (2 x 1,5))		-	Orange RAL 2003	22,4	625,0	925,0	8
75978	( 4 G 16 + 2 x (2 x 1,5))	Indramat	INK-0606	Orange RAL 2003	26,9	904,0	1226,0	6
75979	( 4 G 25 + 2 x (2 x 1,5))	Indramat	INK-0607	Orange RAL 2003	28,0	1323,0	1595,0	4
75980	( 4 G 35 + 2 x (2 x 1,5))	Indramat	INK-0667	Orange RAL 2003	32,5	1621,0	2196,0	2
700565	( 4 G 50 + 2 x (2 x 2.5))	Indramat	INK-0668	Orange RAL 2003	37.0	2600.0	3000.0	1

Dimensions and specifications may be changed without prior notice. (RN07)

