PVC/PUR drag-chain connection cable

300/500 V PVC/PUR Drag-Chain

300/500 V Unscreened PVC/PUR Servo Drag-Chain Connection Cable



Economical TI2 PVC core + coolant-proof TMPU jacket drag-chain cable

300/500 V PVC/PUR | **DIN EN 50363-10-2 TMPU** | **7.5 × OD Chain Bend**

Application

SERVO FD 95810 P is a 300/500 V (UL 600 V) unscreened drag-chain control and servo connection cable pairing economical high-flex TI2 PVC core insulation with a cut-, oil- and coolant-resistant TMPU polyurethane outer jacket for wet CNC machine tools.

Typical uses: Wet CNC Lathes & Milling Centres, Automotive Powertrain Transfer Lines, Grinding, Honing & Broaching Machines, Hydraulic Press & Stamping Lines, Timber, Stone & Glass Processing

Construction





Cross-section, not to scale

1. Superfine copper conductor
2. High-flex PVC core insulation
3. Non-woven sliding fleece wrap
4. Coolant-proof PUR outer sheath

Technical data

Typical values

Rated voltage U0/U	300/500 V (UL/CSA 600 V)	AC test voltage	4000 V AC (50 Hz, 5 min)
Mutual capacitance	≈ 120 pF/m at 800 Hz	Specific insulation resistance	> 20 GΩ·cm at 20 °C
Temperature, flexing	−5 °C to +70 °C (+80 °C UL AWM)	Temperature, fixed installation	−40 °C to +80 °C
Max. conductor temperature	+70 °C (+80 °C UL AWM)	Short-circuit temperature	+160 °C (max. 5 s)
Min. bending radius, moving	7.5 × OD in energy chain	Min. bending radius, fixed	4 × OD
Max. travel speed	4 m/s gliding · 6 m/s unsupported	Max. acceleration	Up to 15 m/s²
Max. tensile load (dynamic)	15 N/mm² of total copper cross-section	Oil & coolant resistance	DIN EN 50363-10-2 TMPU · UL Oil Res I & II
Flame retardance	IEC 60332-1-2 · UL 1581 FT1 / VW-1	Hydrolysis & microbes	Polyether PUR resistant to microbes (EN ISO 846)
Abrasion & notch	DIN ISO 4649 abrasion ≤ 35 mm³ (5× better than PVC)	Standards	DIN EN 50525-2-51 cores + DIN EN 50363-10-2 sheath

Sizes

18 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Cores × mm²	Cross-section	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R chain mm
0.50 mm² PVC/PUR drag-chain control cores 4 sizes						
☐ SERVO FD 95810 P 3G0.5	3G0.5	0.5 mm²	5.4	14	41	40
☐ SERVO FD 95810 P 4G0.5	4G0.5	0.5 mm²	5.8	19	49	44
☐ SERVO FD 95810 P 7G0.5	7G0.5	0.5 mm²	7.0	34	75	52
☐ SERVO FD 95810 P 12G0.5	12G0.5	0.5 mm²	9.0	58	122	68
0.75 mm² PVC/PUR drag-chain control cores 6 sizes						
☐ SERVO FD 95810 P 3G0.75	3G0.75	0.75 mm²	5.9	22	52	44
☐ SERVO FD 95810 P 4G0.75	4G0.75	0.75 mm²	6.4	29	63	48
☐ SERVO FD 95810 P 7G0.75	7G0.75	0.75 mm²	7.7	50	98	58
☐ SERVO FD 95810 P 12G0.75	12G0.75	0.75 mm²	10.0	86	160	75
☐ SERVO FD 95810 P 18G0.75	18G0.75	0.75 mm²	11.9	130	230	89
☐ SERVO FD 95810 P 25G0.75	25G0.75	0.75 mm²	14.4	180	325	108
1.00 mm² PVC/PUR drag-chain control cores 3 sizes						
☐ SERVO FD 95810 P 4G1.0	4G1.0	1.0 mm²	6.9	38	77	52
☐ SERVO FD 95810 P 7G1.0	7G1.0	1.0 mm²	8.3	67	120	62
☐ SERVO FD 95810 P 12G1.0	12G1.0	1.0 mm²	10.8	115	198	81
1.50 mm² PVC/PUR drag-chain control & power cores 3 sizes						
☐ SERVO FD 95810 P 4G1.5	4G1.5	1.5 mm²	7.8	58	104	58
☐ SERVO FD 95810 P 7G1.5	7G1.5	1.5 mm²	9.6	101	168	72
☐ SERVO FD 95810 P 12G1.5	12G1.5	1.5 mm²	12.5	173	276	94
2.50 mm² PVC/PUR drag-chain power cores 2 sizes						
☐ SERVO FD 95810 P 4G2.5	4G2.5	2.5 mm²	9.4	96	158	70
☐ SERVO FD 95810 P 5G2.5	5G2.5	2.5 mm²	10.4	120	194	78

– For sub-zero flexing down to −40 °C or tighter 5 × OD bend radii, select SERVO FD 05855 P (TPE/PUR).

Electrical parameters by cross-section

5 sizes

Cross-section	Max. DC R @ 20 °C Ω/km	Ampacity 3-loaded (A)	Ampacity 12-core (A)	AC test V rms
0.50 mm²	39.00	9.0	5.0	4,000
0.75 mm²	26.00	12.0	6.5	4,000
1.00 mm²	19.50	15.0	8.5	4,000
1.50 mm²	13.30	18.0	10.0	4,000
2.50 mm²	7.98	26.0	14.5	4,000

– Tested at 4000 V AC for 5 minutes across all core cross-sections.

Standards and approvals

- ✓ CE (2014/35/EU Low Voltage Directive)
- ✓ UL AWM Style 20233 / 21223 (80 °C 600 V)
- ✓ RoHS 2 (2011/65/EU) & REACH Compliant

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/300-500-v-unscreened-pvc-pur-servo-cable-chain-connection-cable

Typical values for this cable type, based on DIN VDE 0285 / DIN EN 50363-10-2. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.