Servo, drag-chain & OCT hybrid cables

6FX7008-1BC / SM7 Linear

6FX7008-1BC (SM7) Linear-Motor PUR Servo Cable

High-dynamics DESINA orange PUR drag-chain cable for linear servos

DIN VDE 0250 | U0/U 0.6/1 kV · 4 kV AC | Halogen-free PUR



Application

6FX7008-1BC (SM7) Linear Servo pairs Class 6 bare copper phases with shielded temperature/control pairs, low-capacitance PP insulation, ≥ 85% tinned copper braid, and a matte DESINA orange PUR sheath for high-speed linear axes.

Typical uses: Automated assembly & handling lines, CNC machine tools & gantry axes, Packaging, robotics & intralogistics, Factory servo drive & motion bays

Construction





Cross-section, not to scale

1	Conductor	IEC 60228 Class 5 flexible bare annealed copper · IEC 60228 Class 5
2	Core insulation	Low-capacitance polypropylene (PP) · DIN VDE 0250
3	Core assembly & separator	Concentric cabled assembly with low-friction fleece or polyester binder tape · DIN VDE 0250
4	EMC metallic screen	Shielded PTC/control pair + overall ≥ 85% tinned Cu braid · EMC ≥ 85% / 100% foil
5	Outer sheath	DESINA orange (RAL 2003) matte halogen-free PUR sheath · IEC 60332-1-2 Flame

Technical data

Typical values

Rated voltage U0/U	0.6/1 kV	AC test voltage	4 kV AC / 5 min
Conductor class	IEC 60228 Class 5 bare Cu	EMC screen	Shielded PTC/control pair + overall ≥ 85%
Insulation resistance	≥ 1,000 MΩ·km at 20 °C	Temp. range (fixed)	-50 °C to +90 °C
Temp. range (flexing)	-40 °C to +80 °C	Short-circuit temp.	+160 °C (5 s)
Min. bending radius	7.5 × OD (flexing)	Flame retardance	IEC 60332-1-2 Flame
Oil & chemical perf.	EN 60811-404 Oil	Environmental / EMC	High-Dynamics Linear Axis
Outer sheath	DESINA orange (RAL 2003) matte		

Sizes

9 standard constructions

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

Power + Brake mm²	Outer Ø ≈ mm	Max. R20 Ω/km	Copper index kg/km	Weight ≈ kg/km	Min. bend R 7.5×D mm
☐ 4G1.5 + 2×1	13.2	13.300	112	255	99
☐ 4G2.5 + 2×1	14.3	7.980	152	325	107
☐ 4G4 + 2×1.5	15.6	4.950	220	437	117
☐ 4G6 + 2×1.5	17.0	3.300	297	565	128
☐ 4G10 + 2×1.5	20.3	1.910	452	842	152
☐ 4G16 + 2×1.5	23.9	1.210	681	1,237	179
☐ 4G25 + 2×1.5	27.1	0.780	1,019	1,774	203
☐ 4G35 + 2×1.5	31.0	0.554	1,394	2,399	232
☐ 4G50 + 2×1.5	34.6	0.386	1,951	3,263	260

- Max. conductor DC resistance R20 at 20 °C per IEC 60228 (bare copper).
- Minimum bending radius calculated at 7.5 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- DIN VDE 0250
- UL AWM Style 21223
- IEC 60228 Class 6
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

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/6fx7008-1bc-sm7-linear-motor-pur-servo-cable

Typical values for this cable type, based on DIN VDE 0250 · UL AWM Style 21223 · IEC 60228 Class 6. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.