Servo, drag-chain & OCT hybrid cables

2090-CSBM1DF 1000V TPE

2090-CSBM1DF 1000 V TPE Single-Motor Servo Cable

Orange 1000 V TPE single-cable power, brake & feedback servo hybrid



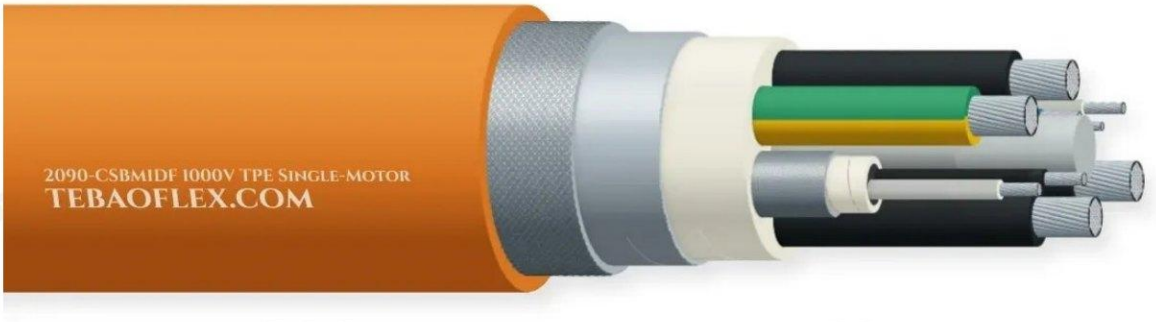
UL AWM Style 21223 | **U0/U 1000 V · 4 kV AC** | **EMC Screened**

Application

2090-CSBM1DF 1000 V TPE combines flexible tinned copper power conductors, shielded brake and digital feedback pairs, dual EMC screening, and an orange oil-resistant TPE jacket for continuous-flex single-cable servo 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**	ASTM B172 Class K flexible tinned annealed copper · ASTM B172 Class K / UL 1277
2	**Core insulation**	Low-capacitance thermoset XLPE / PP + foamed PE pair · UL AWM Style 21223
3	**Core assembly & separator**	Concentric cabled assembly with low-friction fleece or polyester binder tape · UL AWM Style 21223
4	**EMC metallic screen**	Individually shielded feedback + brake pairs + overall ≥ 85% tinned Cu braid · EMC ≥ 85% / 100% foil
5	**Outer sheath**	DESINA orange oil- & abrasion-resistant TPE outer jacket · UL Oil Res I/II

Technical data

Typical values

Rated voltage U0/U	1000 V	AC test voltage	4 kV AC / 5 min
Conductor class	ASTM B172 Class K tinned Cu	EMC screen	Individually shielded feedback + brake
Insulation resistance	≥ 1,000 MΩ·km at 20 °C	Temp. range (fixed)	-40 °C to +90 °C
Temp. range (flexing)	-30 °C to +80 °C	Short-circuit temp.	+250 °C (5 s)
Min. bending radius	7.5 × OD (flexing)	Flame retardance	UL Oil Res I/II
Oil & chemical perf.	100 Ω Digital Feedback Pair	Environmental / EMC	Continuous Flexing
Outer sheath	DESINA orange oil- & abrasion-resistant		

Sizes

8 standard constructions

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

Power + Brake AWG	Outer Ø ≈ mm	Max. R20 Ω/km	Copper index kg/km	Weight ≈ kg/km	Min. bend R 7.5×D mm
☐ 4×14 AWG + 2×16 AWG	14.8	9.070	146	329	111
☐ 4×12 AWG + 2×16 AWG	16.1	5.710	195	418	121
☐ 4×10 AWG + 2×16 AWG	17.6	3.590	271	548	132
☐ 4×8 AWG + 2×16 AWG	21.4	2.260	397	806	160
☐ 4×6 AWG + 2×16 AWG	23.9	1.420	585	1,120	179
☐ 4×4 AWG + 2×16 AWG	27.8	0.892	886	1,636	208
☐ 4×2 AWG + 2×14 AWG	33.0	0.561	1,370	2,461	248
☐ 4×1/0 AWG + 2×14 AWG	37.9	0.353	2,114	3,640	284

- Max. conductor DC resistance R20 at 20 °C per ASTM B172 / B8 (tinned copper).
- Minimum bending radius calculated at 7.5 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- UL AWM Style 21223
- UL 2277 Type WTTC
- CSA AWM I/II A/B FT4
- 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/2090-csbm1df-1000v-tpe-single-motor-servo-cable

Typical values for this cable type, based on UL AWM Style 21223 · UL 2277 Type WTTC · CSA AWM I/II A/B FT4. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.