Servo, drag-chain & OCT hybrid cables

SPEC 45446 600/1000V Servo

SPEC 45446 600/1000 V Industrial Servo Cable

Black 600/1000 V UL TC-ER flexible servo power & brake cable

UL 1277 Type TC-ER | U0/U 600/1000 V · 4 kV AC | EMC Screened

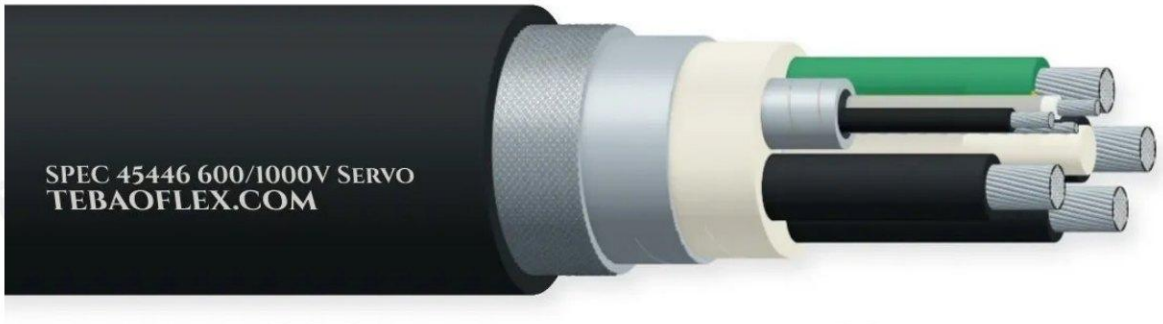


Application

SPEC 45446 600/1000 V Servo combines fine-stranded tinned copper conductors, low-capacitance XLPE/TPE insulation, shielded brake pair, overall foil/braid screen, and a black oil-resistant jacket for North American servo drives.

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 (90 °C) · UL 1277 Type TC-ER
3	Core assembly & separator	Concentric cabled assembly with low-friction fleece or polyester binder tape · UL 1277 Type TC-ER
4	EMC metallic screen	Individually shielded brake pair + overall foil & ≥ 85% tinned Cu braid · EMC ≥ 85% / 100% foil
5	Outer sheath	Black oil-, coolant- & UV-resistant TPE/PVC jacket · UL Oil Res I/II

Technical data

Typical values

Rated voltage U0/U	600/1000 V	**AC test voltage**	4 kV AC / 5 min
Conductor class	ASTM B172 Class K tinned Cu	**EMC screen**	Individually shielded brake pair +
Insulation resistance	≥ 1,000 MΩ·km at 20 °C	**Temp. range (fixed)**	-40 °C to +90 °C
Temp. range (flexing)	-25 °C to +80 °C	**Short-circuit temp.**	+250 °C (5 s)
Min. bending radius	8 × OD (flexing)	**Flame retardance**	UL Oil Res I/II
Oil & chemical perf.	IEEE 1202 / FT4 Flame	**Environmental / EMC**	Sunlight Resistant
Outer sheath	Black oil-, coolant- & UV-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 8×D mm
☐ **4×14 AWG + 2×16 AWG**	**14.8**	**9.070**	**146**	**329**	**118**
☐ **4×12 AWG + 2×16 AWG**	**16.1**	**5.710**	**195**	**418**	**129**
☐ **4×10 AWG + 2×16 AWG**	**17.6**	**3.590**	**271**	**548**	**141**
☐ **4×8 AWG + 2×16 AWG**	**21.4**	**2.260**	**397**	**806**	**171**
☐ **4×6 AWG + 2×16 AWG**	**23.9**	**1.420**	**585**	**1,120**	**191**
☐ **4×4 AWG + 2×16 AWG**	**27.8**	**0.892**	**886**	**1,636**	**222**
☐ **4×2 AWG + 2×14 AWG**	**33.0**	**0.561**	**1,370**	**2,461**	**264**
☐ **4×1/0 AWG + 2×14 AWG**	**37.9**	**0.353**	**2,114**	**3,640**	**303**

- Max. conductor DC resistance R20 at 20 °C per ASTM B172 / B8 (tinned copper).
- Minimum bending radius calculated at 8 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- UL 1277 Type TC-ER
- 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/spec-45446-600-1000v-tc-er-servo-motor-cable

Typical values for this cable type, based on UL 1277 Type TC-ER · 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.