Control & signal cable

S 776 / S 780 C

Low-Outgassing Cleanroom Flexible Control Cable

ISO 14644-1 Class 1 low-outgassing Class 6 TPE/PUR cleanroom drag-chain control cable



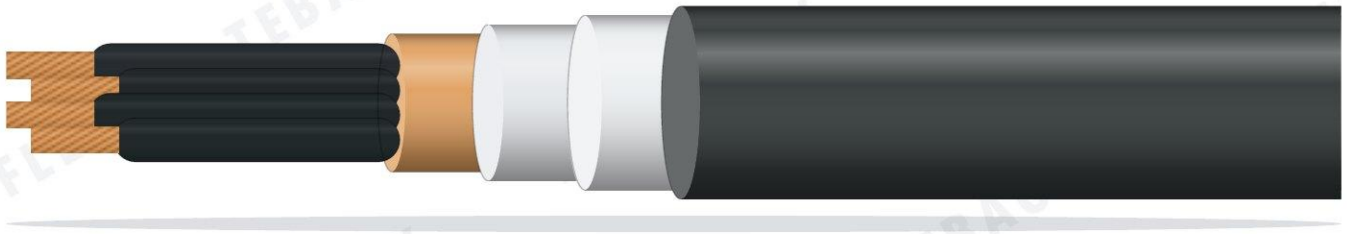
ISO 14644-1 Class 1 Cleanroom | **S 776 & S 780 C Screened** | **Class 6 Continuous Drag-Chain**

Application

S 776 (unscreened) and S 780 C (screened) continuous-flex cleanroom control cable (300/500 V, -40 to +80 °C) for ISO 14644-1 Class 1 cleanrooms, featuring IEC 60228 Class 6 copper cores, TPE insulation, and a low-outgassing matte TPE/PUR jacket.

Typical uses: Semiconductor Wafer Handling & Robotics (ISO Class 1), Flat-Panel Display, OLED & Solar Cell Cleanrooms, Pharmaceutical Aseptic Filling & Biotech Automation, Optical, Laser & Precision Metrology Gantries, Battery Dry-Room & EV Cell Assembly

Construction





Cross-section, not to scale

1. Super-fine Class 6 copper
2. Low-outgassing TPE core wall
3. Talc-free fleece / inner sheath
4. Low-outgassing matte TPE/PUR jacket

Technical data

Typical values

Rated voltage U0/U	300/500 V (≥ 0.5 mm²) · 300/300 V (0.14–0.34 mm²)	**AC dielectric test voltage**	2,000 V AC (≥ 0.5 mm²) · 1,500 V AC (≤ 0.34 mm²)
EMC screen (S 780 C)	Braided tinned copper wire (≥ 85 % coverage)	**Insulation resistance**	≥ 100 MΩ·km at +20 °C
Continuous flexing temp.	-40 °C to +80 °C	**Fixed installation temp.**	-50 °C to +80 °C
Cleanroom particle class	ISO 14644-1 Air Cleanliness Class 1	**Conductor stranding**	IEC 60228 Class 6 super-fine copper
Min. bending radius (chain)	5 × OD (S 776) · 7.5 × OD (S 780 C)	**Min. bending radius (fixed)**	3 × OD (S 776) · 4 × OD (S 780 C)
Outgassing & LABS/PWIS	Ultra-low VOC/SVOC outgassing · LABS/PWIS-free	**Halogen-free & oil resistance**	IEC 60754-1/2 halogen-free · EN 60811-404 oil pass
Cleanroom disinfectant wipe	Resistant to IPA, H_2O_2 & quaternary ammonium	**Standards**	ISO 14644-1 Class 1 & ISO 14644-14

Sizes

24 standard constructions

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

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard S 776 / S 780 C configurations 24 sizes							
☐ S 776 / S 780 C 4×0.25	4×0.25 mm²	Class 6 Cu (0.25 mm²)	1.25	6.30	32.3	75.2	44
☐ S 776 / S 780 C 8×0.25	8×0.25 mm²	Class 6 Cu (0.25 mm²)	1.25	7.70	46.9	110.9	54
☐ S 776 / S 780 C 12×0.25	12×0.25 mm²	Class 6 Cu (0.25 mm²)	1.45	9.40	62.6	158.0	66
☐ S 776 / S 780 C 18×0.25	18×0.25 mm²	Class 6 Cu (0.25 mm²)	1.45	10.70	81.7	205.3	75
☐ S 776 / S 780 C 4×0.34	4×0.34 mm²	Class 6 Cu (0.34 mm²)	1.25	6.60	36.8	83.8	46
☐ S 776 / S 780 C 8×0.34	8×0.34 mm²	Class 6 Cu (0.34 mm²)	1.25	8.10	55.3	126.2	57
☐ S 776 / S 780 C 12×0.34	12×0.34 mm²	Class 6 Cu (0.34 mm²)	1.45	9.90	74.8	180.7	69
☐ S 776 / S 780 C 3G0.5	3G0.5 mm²	Class 6 Cu (0.5 mm²)	1.25	6.50	37.8	83.4	46
☐ S 776 / S 780 C 4G0.5	4G0.5 mm²	Class 6 Cu (0.5 mm²)	1.25	7.00	44.4	97.3	49
☐ S 776 / S 780 C 7G0.5	7G0.5 mm²	Class 6 Cu (0.5 mm²)	1.25	8.00	62.4	131.5	56
☐ S 776 / S 780 C 12G0.5	12G0.5 mm²	Class 6 Cu (0.5 mm²)	1.45	10.60	95.8	217.1	74
☐ S 776 / S 780 C 18G0.5	18G0.5 mm²	Class 6 Cu (0.5 mm²)	1.45	12.10	130.0	288.1	85
☐ S 776 / S 780 C 3G0.75	3G0.75 mm²	Class 6 Cu (0.75 mm²)	1.25	6.90	46.4	97.8	48
☐ S 776 / S 780 C 4G0.75	4G0.75 mm²	Class 6 Cu (0.75 mm²)	1.25	7.50	55.8	116.6	52
☐ S 776 / S 780 C 7G0.75	7G0.75 mm²	Class 6 Cu (0.75 mm²)	1.25	8.70	81.7	163.4	61
☐ S 776 / S 780 C 12G0.75	12G0.75 mm²	Class 6 Cu (0.75 mm²)	1.45	11.40	127.4	267.8	80
☐ S 776 / S 780 C 18G0.75	18G0.75 mm²	Class 6 Cu (0.75 mm²)	1.45	13.20	177.1	365.3	92
☐ S 776 / S 780 C 3G1	3G1 mm²	Class 6 Cu (1 mm²)	1.25	7.30	55.1	112.7	51
☐ S 776 / S 780 C 4G1	4G1 mm²	Class 6 Cu (1 mm²)	1.25	7.90	66.8	134.2	55
☐ S 776 / S 780 C 7G1	7G1 mm²	Class 6 Cu (1 mm²)	1.25	9.20	100.3	191.7	64
☐ S 776 / S 780 C 12G1	12G1 mm²	Class 6 Cu (1 mm²)	1.45	12.20	159.1	319.8	85
☐ S 776 / S 780 C 4G1.5	4G1.5 mm²	Class 6 Cu (1.5 mm²)	1.25	9.10	90.4	179.8	64
☐ S 776 / S 780 C 7G1.5	7G1.5 mm²	Class 6 Cu (1.5 mm²)	1.25	10.70	139.3	262.9	75
☐ S 776 / S 780 C 12G1.5	12G1.5 mm²	Class 6 Cu (1.5 mm²)	1.45	14.30	224.3	445.1	100

– Outer diameters and weights are nominal engineering values for S 776 / S 780 C subject to standard manufacturing tolerances per ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain Specification.

Electrical & rating data

24 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or nF/km)	Secondary rating	Dielectric test VAC rms
4×0.25 mm²	79.00	4.0	3.0	2,000
8×0.25 mm²	79.00	4.0	3.0	2,000
12×0.25 mm²	79.00	4.0	3.0	2,000
18×0.25 mm²	79.00	4.0	3.0	2,000
4×0.34 mm²	57.00	6.0	5.0	2,000
8×0.34 mm²	57.00	6.0	5.0	2,000
12×0.34 mm²	57.00	6.0	5.0	2,000
3G0.5 mm²	39.00	9.0	7.0	2,000
4G0.5 mm²	39.00	9.0	7.0	2,000
7G0.5 mm²	39.00	9.0	7.0	2,000
12G0.5 mm²	39.00	9.0	7.0	2,000
18G0.5 mm²	39.00	9.0	7.0	2,000
3G0.75 mm²	26.00	12.0	9.0	2,000
4G0.75 mm²	26.00	12.0	9.0	2,000
7G0.75 mm²	26.00	12.0	9.0	2,000
12G0.75 mm²	26.00	12.0	9.0	2,000
18G0.75 mm²	26.00	12.0	9.0	2,000
3G1 mm²	19.50	15.0	11.0	2,000
4G1 mm²	19.50	15.0	11.0	2,000
7G1 mm²	19.50	15.0	11.0	2,000
12G1 mm²	19.50	15.0	11.0	2,000
4G1.5 mm²	13.30	18.0	14.0	2,000
7G1.5 mm²	13.30	18.0	14.0	2,000
12G1.5 mm²	13.30	18.0	14.0	2,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain Specification.

Standards and approvals

- ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain Specification
- CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- REACH SVHC Compliance Verified

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/sabclean-s-776-s-780-c-low-outgassing-cleanroom-flexible-control-cable

Typical values for this cable type, based on ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.