



Screened PUR spiral signal cable

Shielded PUR Spiral Signal Cable

EMC-screened 3.5 : 1 retractable coiled PUR signal & pendant cable

300 V DIN VDE 0812

≥ 85 % Spiral Cu Screen

3.5 : 1 Extension (L1:L0)



Application

Retractable EMC-screened coiled signal and instrumentation cable (0.14–0.50 mm²) featuring superfine Class 6 copper conductors, high-rebound TPE-E core insulation, ≥ 85 % tinned copper spiral D-screen and halogen-free PUR jacket for teach pendants and sensors.

Typical uses: CNC Handheld MPGs & Teach Pendants, Medical Diagnostic & Imaging Carts, Mobile Weighing & Load-Cell Systems, Automated Test & Probe Stations, Industrial Barcode & Vision Scanners

Construction



SHIELDED PUR SPIRAL SIGNAL CABLE
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Cross-section, not to scale

- 1 Superfine signal conductor
- 2 High-modulus TPE-E insulation
- 3 PTFE anti-friction wrap
- 4 Helical tinned copper D-screen
- 5 High-memory PUR outer sheath

Technical data

Typical values

Rated voltage U0/U	300 V (UL) · 250 V peak (DIN VDE 0812)	AC test voltage	1500 V AC core/core · 1000 V AC core/screen
Screen / Field control	Helical tinned copper D-screen ≥ 85 % coverage	Capacitance	≈ 70 pF/m (core/core) · ≈ 120 pF/m (core/screen)
Insulation resistance	≥ 200 MΩ·km at 20 °C	Temperature, flexing	−30 °C to +70 °C (coil extension service)
Temperature, fixed installation	−40 °C to +80 °C	Max. conductor temperature	+70 °C
Extension ratio (L1 : L0)	Up to 3.5 : 1 (working length L1 vs block L0)	Standard block lengths (L0)	100, 200, 300, 400, 500, 750, 1000 mm
Straight tail ends	200 mm / 200 mm (axial or radial exit)	Extension endurance	≥ 100,000 full extension/retraction cycles
Oil resistance	DIN EN 50363-10-2 (cutting oils & coolants)	Flame retardance	IEC 60332-1-2 self-extinguishing
Halogen-free / Smoke density	IEC 60754-1/2 halogen-free	Chemicals & disinfectants	Resists alcohol wipes, hydrolysis & microbes
Standards	DIN VDE 0812 & DIN EN 50363-10-2		

Sizes

14 standard constructions

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

Order designation	Cores × mm ²	Ref. L0 / Max L1	Cable Ø ≈ mm	Coil outer Ø mm ≈	Linear Cu kg/km	Linear wt ≈ kg/km
0.14 mm ² (AWG 26) ultra-light sensor & scanner spiral cords 4 sizes						
☐ SPIRAL-PUR-C 2×0.14 (300/1050)	2×0.14	300 / 1050 mm	4.5	17.0	14	32
☐ SPIRAL-PUR-C 4×0.14 (300/1050)	4×0.14	300 / 1050 mm	5.0	19.0	19	41
☐ SPIRAL-PUR-C 7×0.14 (300/1050)	7×0.14	300 / 1050 mm	5.8	22.0	27	54
☐ SPIRAL-PUR-C 12×0.14 (300/1050)	12×0.14	300 / 1050 mm	7.0	26.0	41	78
0.25 mm ² (AWG 24) CNC handwheel & teach-pendant spiral cords 5 sizes						
☐ SPIRAL-PUR-C 2×0.25 (400/1400)	2×0.25	400 / 1400 mm	4.9	19.0	18	38
☐ SPIRAL-PUR-C 4×0.25 (400/1400)	4×0.25	400 / 1400 mm	5.5	21.0	25	49
☐ SPIRAL-PUR-C 7×0.25 (400/1400)	7×0.25	400 / 1400 mm	6.5	25.0	36	68
☐ SPIRAL-PUR-C 12×0.25 (400/1400)	12×0.25	400 / 1400 mm	7.9	29.0	56	98
☐ SPIRAL-PUR-C 18×0.25 (400/1200)	18×0.25	400 / 1200 mm	9.2	34.0	80	136
0.34 mm ² (AWG 22) instrumentation & load-cell spiral cords 3 sizes						
☐ SPIRAL-PUR-C 4×0.34 (500/1750)	4×0.34	500 / 1750 mm	5.9	22.0	31	58
☐ SPIRAL-PUR-C 7×0.34 (500/1750)	7×0.34	500 / 1750 mm	7.0	26.0	46	82
☐ SPIRAL-PUR-C 12×0.34 (500/1500)	12×0.34	500 / 1500 mm	8.6	32.0	72	122
0.50 mm ² (AWG 20) 24 V control & actuator screened spiral cords 2 sizes						
☐ SPIRAL-PUR-C 4×0.50 (500/1750)	4×0.50	500 / 1750 mm	6.5	24.0	40	72
☐ SPIRAL-PUR-C 7×0.50 (500/1750)	7×0.50	500 / 1750 mm	7.8	29.0	62	104

– Linear copper weight (kg/km) includes both the Class 6 signal conductors and the ≥ 85 % helical tinned copper D-screen.

Electrical parameters by signal gauge

4 sizes

Core cross-section	Class 6 stranding	Max. DC R @ 20 °C Ω/km	Max. current at +30 °C (A)	C core/core pF/m≈	C core/screen pF/m≈
0.14 mm ² (AWG 26)	18 × 0.10 mm	138.0	1.5	65	115
0.25 mm ² (AWG 24)	32 × 0.10 mm	79.0	2.5	68	120
0.34 mm ² (AWG 22)	42 × 0.10 mm	57.0	3.5	70	125
0.50 mm ² (AWG 20)	28 × 0.15 mm	39.0	5.0	75	135

– Low-capacitance TPE-E insulation (~65–75 pF/m) preserves clean RS-422/RS-485 and quadrature encoder pulses on handheld MPG handwheels.

Standards and approvals

- ✓ CE & RoHS 2 (2011/65/EU) / REACH Compliant
- ✓ IEC 60754-1/2 Halogen-Free TPE-E / PUR
- ✓ DIN 47100 Signal Core Colour Standard

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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/shielded-pur-spiral-signal-cable



Typical values for this cable type, based on DIN VDE 0812 / 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.