



M23 servo power & feedback cable assembly

M23 Servo Cable Assembly

DESINA 1000 V M23 servo motor power + brake (4+3+PE) & 12/17-pin encoder assembly



M23 Speedtec / Screw

1000 V UL / CSA

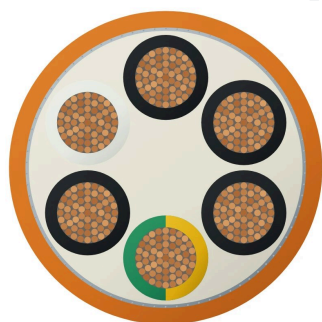
DESINA Orange / Green

Application

Low-capacitance M23 servo power + brake (6/8-pin, 1.5–16 mm²) and encoder feedback (12/17-pin, EnDat / Hiperface / DRIVE-CLiQ) drag-chain assembly compatible with standard 6FX5002/6FX8002, IKG/IKR and multi-axis servo drives.

Typical uses: CNC Machining Centres, Multi-Axis Gantry & Packaging, 6FX8002 / 6FX5002 Servo Drive Systems, Multi-Axis Industrial Servo Axes, Automated Battery & Solar Lines

Construction



Cross-section, not to scale

- 1 Extra-fine Class 6 servo conductors
- 2 Low-capacitance PP dielectric
- 3 Individual brake screen + overall braid
- 4 DESINA Orange / Green PUR-HF jacket
- 5 M23 brass shell with 360° EMC crown
- 6 Overmoulded TPU / metal gland strain relief

Technical data

Typical values

Rated voltage (Power / Control)	600/1000 V AC (power) · 300/500 V (brake/signal)	Rated current (M23 power contacts)	28 A (2 mm pins, 1.5–4 mm ²) · 70 A (3.6 mm pins, 6–16 mm ²)
Core-to-core capacitance	≤ 75 pF/m (low-capacitance PP power cores)	AC test voltage	4.0 kV AC (power cores) · 2.0 kV AC (control pairs)
Insulation resistance	≥ 500 MΩ·km at 20 °C	Operating temperature (fixed)	–50 °C to +80 °C
Drag-chain flexing temperature	–30 °C to +80 °C (UL/CSA 80 °C)	Max. conductor temperature	+90 °C
Drag-chain endurance	≥ 5,000,000 to 10,000,000 bending cycles	Min. bend radius (drag chain)	7.5 × OD (≤ 16 mm OD) · 10 × OD (> 16 mm OD)
Max. speed & acceleration	300 m/min (5 m/s) · up to 50 m/s ²	Coupling mechanism	M23×1 thread & Speedtec quick-lock compatible
Ingress protection	IP67 / IP68 (mated M23 connector)	Cutting oil & coolant	EN 60811-404 / UL Oil Res I & II
Halogen-free & flame	IEC 60754-1/2 & IEC 60332-1-2 / UL FT1	Standards	IEC 61076-2-106 / EN 61984 / VDE 0627
Standard packing	Coiled and individually bagged with OEM cross-reference & test report		

Sizes

15 standard constructions

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

Order designation	M23 Pinout & Lengths	Cable Construction	Length m	Cable OD mm	Copper kg/km	Cable Wt kg/km	Flex R mm
M23 Servo Power + Holding Brake Assemblies (DESINA Orange RAL 2003, 1000 V) 10 sizes							
☐ M23-PWR-4G1.5-BR-5M	M23 6-Pin (4+2) → Inverter Ferrules (5 m)	4G1.5 + (2×1.5)C	5.0	11.6	112	215	87
☐ M23-PWR-4G1.5-BR-10M	M23 6-Pin (4+2) → Inverter Ferrules (10 m)	4G1.5 + (2×1.5)C	10.0	11.6	112	215	87
☐ M23-PWR-4G1.5-2P-15M	M23 8-Pin (4+4) → Inverter Ferrules (15 m)	4G1.5 + 2×(2×0.75)C	15.0	12.2	126	238	92
☐ M23-PWR-4G2.5-BR-5M	M23 6-Pin (4+2) → Inverter Ferrules (5 m)	4G2.5 + (2×1.5)C	5.0	13.0	156	285	98
☐ M23-PWR-4G2.5-BR-10M	M23 6-Pin (4+2) → Inverter Ferrules (10 m)	4G2.5 + (2×1.5)C	10.0	13.0	156	285	98
☐ M23-PWR-4G2.5-BR-20M	M23 6-Pin (4+2) → Inverter Ferrules (20 m)	4G2.5 + (2×1.5)C	20.0	13.0	156	285	98
☐ M23-PWR-4G4.0-BR-10M	M23 6-Pin (4+2) → Inverter Ferrules (10 m)	4G4.0 + (2×1.5)C	10.0	14.6	228	375	110
☐ M23-PWR-4G6.0-BR-10M	M23 Size 1.5 (70A) → Inverter Ferrules (10 m)	4G6.0 + (2×1.5)C	10.0	16.8	318	495	126
☐ M23-PWR-4G10-BR-15M	M23 Size 1.5 (70A) → Inverter Ferrules (15 m)	4G10 + (2×1.5)C	15.0	20.4	495	720	153
☐ M23-PWR-4G16-BR-15M	M23 Size 1.5 (70A) → Inverter Ferrules (15 m)	4G16 + (2×1.5)C	15.0	24.2	740	1,030	182
M23 12-Pin & 17-Pin Resolver / EnDat / Hiperface Feedback Assemblies (DESINA Green RAL 6018) 5 sizes							
☐ M23-ENC-12P-RES-5M	M23 12-Pin Resolver ↔ Sub-D15 (5 m)	3×(2×0.14)D + 4×0.14 + 2×0.5	5.0	7.8	48	88	59
☐ M23-ENC-12P-RES-10M	M23 12-Pin Resolver ↔ Sub-D15 (10 m)	3×(2×0.14)D + 4×0.14 + 2×0.5	10.0	7.8	48	88	59
☐ M23-ENC-17P-ENDAT-5M	M23 17-Pin EnDat/SinCos ↔ Sub-D15 (5 m)	4×(2×0.14) + 4×0.5	5.0	8.5	56	104	64
☐ M23-ENC-17P-ENDAT-10M	M23 17-Pin EnDat/SinCos ↔ Sub-D15 (10 m)	4×(2×0.14) + 4×0.5	10.0	8.5	56	104	64
☐ M23-ENC-17P-ENDAT-20M	M23 17-Pin EnDat/SinCos ↔ Sub-D15 (20 m)	4×(2×0.14) + 4×0.5	20.0	8.5	56	104	64

– Extension cables (M23 Female Motor Plug to M23 Male Coupler Plug) and rotatable 90° elbow connectors available across all cross-sections.

Standards and approvals

- ✓ IEC 61076-2-106 / EN 61984 M23 Compliant
- ✓ cURus UL 758 AWM Style 21223 (1000 V, 80 °C) & DESINA

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/m23-servo-cable-assembly



Typical values for this cable type, based on IEC 61076-2-106 / EN 61984 / UL 758 (1000 V). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.