



M12 A-coded sensor & IO-Link cordset

M12 A-coded Sensor Actuator Cordset

IEC 61076-2-101 M12 A-coded 3/4/5/8/12-pin IO-Link, sensor & CANopen cordset

IEC 61076-2-101

M12 A-Coded

IO-Link / Sensor

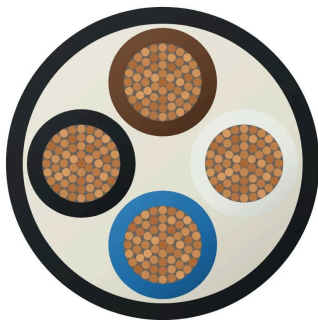
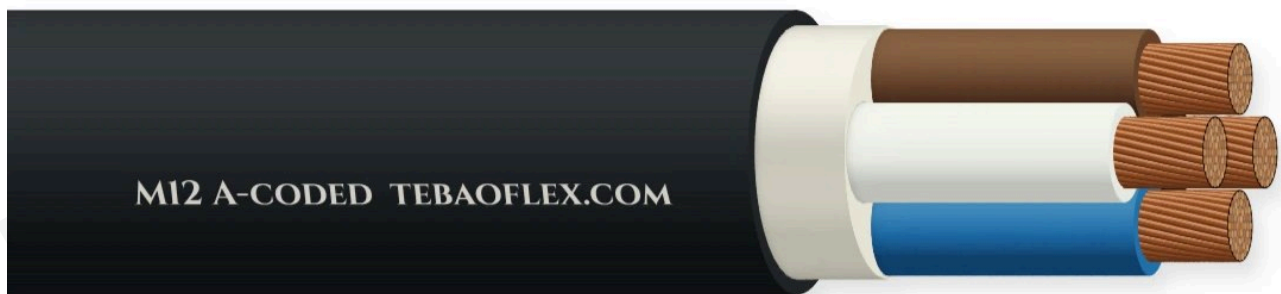


Application

M12×1 A-coded overmoulded sensor, actuator, IO-Link Class A/B and CANopen/DeviceNet cordset to IEC 61076-2-101 and UL 2238, in 3, 4, 5, 8 and 12 poles with IP67/IP68/IP69K sealing and 5-million-cycle drag-chain PUR-HF cable.

Typical uses: IO-Link Class A/B Fieldbus, Automotive Body-in-White Lines, Food & Beverage IP69K Washdown, Logistics & Conveyor Sorting, Mobile Hydraulics & CANopen

Construction



Cross-section, not to scale

- 1 Extra-fine Class 6 bare copper
- 2 PP core insulation
- 3 Optional 360° tinned copper braid
- 4 Drag-chain polyether PUR-HF sheath
- 5 M12×1 hex coupling nut & gold contacts
- 6 Ergonomic TPU overmoulded body

Technical data

Typical values

Rated voltage (IEC 61076-2-101)	250 V (3/4-pin) · 60 V (5-pin) · 30 V (8/12-pin)
Contact resistance	≤ 3 mΩ
Test voltage	2.5 kV AC (3/4P) · 1.5 kV AC (5P) · 0.8 kV AC (8/12P)
Drag-chain flexing range	–25 °C to +80 °C
Drag-chain flex life	≥ 5,000,000 cycles at 10 × OD, 4 m/s
Recommended torque	0.6 Nm (M12×1 hex nut)
Environmental sealing	IP67 / IP68 (1 m, 24 h) / IP69K (mated)
Halogen-free & flame	IEC 60754-1/2 & IEC 60332-1-2 / UL FT2
Standard packing	Individual barcoded PE bag with clip-on cable marker

Rated current at 40 °C	4.0 A (3/4/5-pin) · 2.0 A (8-pin) · 1.5 A (12-pin)
Insulation resistance	≥ 100 MΩ at 500 V DC
Fixed operating range	–40 °C to +85 °C
Insert flammability	UL 94 V-0 TPU contact carrier
Robotic torsion rating	± 180°/m (2 million cycles on unshielded PUR)
Mating cycles	≥ 100 cycles (gold-plated contacts)
Oil & machining coolants	EN 60811-404 / UL Oil Res I & II
Standards	IEC 61076-2-101 (A-coding)

Sizes

16 standard constructions

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

Order designation	Connector Configuration	Poles & Cross-Section	Length m	Cable OD mm	Copper kg/km	Cable Wt kg/km	Flex R mm
3-, 4- & 5-Pin Discrete Sensor & IO-Link Cordsets 9 sizes							
☐ M12A-3P-F-STR-2M	Female Straight → Flying Leads	3-Pin (3×0.34 mm ²)	2.0	4.3	9.8	26	43
☐ M12A-4P-F-STR-2M	Female Straight → Flying Leads	4-Pin (4×0.34 mm ²)	2.0	4.7	13.1	32	47
☐ M12A-4P-F-STR-5M	Female Straight → Flying Leads	4-Pin (4×0.34 mm ²)	5.0	4.7	13.1	32	47
☐ M12A-4P-F-STR-10M	Female Straight → Flying Leads	4-Pin (4×0.34 mm ²)	10.0	4.7	13.1	32	47
☐ M12A-4P-F-ANG-LED-5M	Female 90° 3×LED → Flying Leads	4-Pin (4×0.34 mm ²)	5.0	4.7	13.1	32	47
☐ M12A-4P-MF-DE-1M	Male Straight ↔ Female Straight (IO-Link)	4-Pin (4×0.34 mm ²)	1.0	4.7	13.1	32	47
☐ M12A-4P-MF-DE-3M	Male Straight ↔ Female Straight (IO-Link)	4-Pin (4×0.34 mm ²)	3.0	4.7	13.1	32	47
☐ M12A-5P-F-STR-5M	Female Straight → Flying Leads	5-Pin (5×0.34 mm ²)	5.0	5.0	16.3	37	50
☐ M12A-5P-MF-DE-2M	Male Straight ↔ Female Straight (IO-Link B)	5-Pin (5×0.50 mm ² Class B)	2.0	5.4	24.0	45	54
360° Shielded, 8-Pin & 12-Pin Multi-Signal Cordsets 7 sizes							
☐ M12A-4P-F-SHD-5M	360° Shielded Female → Flying Leads	4-Pin (4×0.34 mm ² Shielded)	5.0	5.2	23.0	43	52
☐ M12A-5P-F-SHD-5M	360° Shielded Female → Flying Leads	5-Pin (5×0.34 mm ² Shielded)	5.0	5.6	27.5	49	56
☐ M12A-5P-MF-CAN-5M	CANopen / DeviceNet Shielded Drop	5-Pin (2×0.25+2×0.34+Drain)	5.0	6.7	31.0	64	67
☐ M12A-8P-F-STR-5M	Female Straight → Flying Leads	8-Pin (8×0.25 mm ²)	5.0	5.9	19.2	48	59
☐ M12A-8P-F-SHD-5M	360° Shielded Female → Flying Leads	8-Pin (8×0.25 mm ² Shielded)	5.0	6.4	32.0	61	64
☐ M12A-12P-F-STR-5M	Female Straight → Flying Leads	12-Pin (12×0.14 mm ²)	5.0	6.0	16.2	49	60
☐ M12A-12P-F-SHD-10M	360° Shielded Female → Flying Leads	12-Pin (12×0.14 mm ² Shielded)	10.0	6.5	29.5	63	65

– M12A-5P-MF-DE-2M uses 5 × 0.50 mm² conductors to minimise voltage drop on IO-Link Port Class B actuator power supplies.

Standards and approvals

- ✓ IEC 61076-2-101 M12 A-Coded Compliant
- ✓ UL 2238 & IO-Link IEC 61131-9 Compatible

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/m12-a-coded-sensor-actuator-cordset



Typical values for this cable type, based on IEC 61076-2-101 / EN 60947-5-2 / UL 2238. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.