

# ZK4000-7700-0xxx | Motor cables for AS2000 stepper motors, pre-assembled, with open end for IP 20 I/Os

M12, socket, straight, female, 4-pin, T-coded - open end, 4-wire + shielding

## Plugs

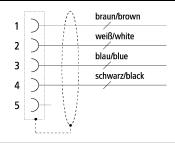
Rated voltage 160 V (according to IEC 61076-2-101) -   Rated current 8 A at 50 °C (according to IEC 60512-5-2) -	
Rated current8 A at 50 °C (according to IEC 60512-5-2)	
Shielding yes -	
<b>Contact resistance</b> $< 10 \text{ m}\Omega$	
<b>Insulation resistance</b> $\geq 100 \text{ M}\Omega \text{ (according to IEC 60512)}$ -	
Mechanical data	
Installation size M12 open end	
Connector type socket -	
Configuration straight -	
Contact type female -	
Number of positions (face) 4-pin 4-wire + shielding	
Coding T-coded -	
Recommended torque, nut 0.6 Nm -	
Mating cycles $\geq 100$ (according to IEC 60512-9a)	
Way of locking screw -	
Body colour black -	
Body material TPU, UL 94 HB, black -	
Coupling nut material GD-Zn, Ni -	
Seal FPM -	
Contact carrier colour red -	
Contact carrier material PA, UL 94	
Contact plating Ni, Au gal.	
Contact material CuZn -	
Environmental data	
RoHS compliant yes -	
Ambient temperature (operation) -30+80 °C, -22+176 °F -	
Protection class IP 67 in screwed condition (according to IEC 60529) -	
Pollution level 3/2 (according to IEC 60664-1) -	

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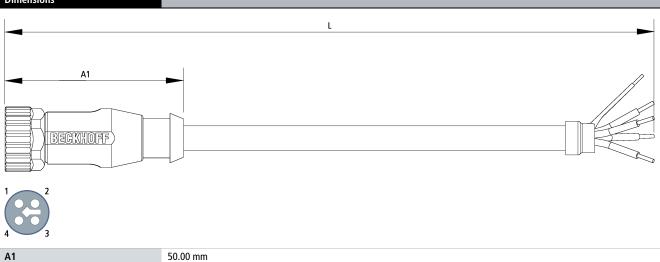
# Cable

Electrical data	
Rated voltage	≤ 300 V
Operating voltage	≤ 300 V
Insulation resistance	$\geq$ 1 G $\Omega$ * km
Wire resistance	≤ 26 Ω/km (20 °C)
Wire resistance (signal/24V)	≤ 26.0 Ω/km (DIN EN 50395)
Test voltage	≥ 2000 V
Mechanical data	
Conductor construction	42 x 0.15 mm
Cross section	4 x 0.75 mm <sup>2</sup>
Cross section (power)	0.75 mm <sup>2</sup> (approx. AWG18)
Min. bending radius, moved	10 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Weight	64 kg/km (95 lb/1000 ft)
Outer cable diameter	6.2 mm ± 0.2mm (0.244" ± 0.0079")
Conductor material	Copper bare
Shielding	braiding of tinned copper wires
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
UL-Style Conductor	UL758 (AWM) Style 21223 (jacket) and Style 10492 (core)
Max. number of cycles	2 million
Wall thickness of wire insulation	≥ 0.21 mm
Jacket colour	orange
Material jacket	PUR (polyurethane)
Material jacket, further characteristics of	abrasion-resistant
Wire colour code	brown, white, blue, black
Wire insulation material	PP (polypropylene)
Printing colour	black
Environmental data	
Operation temperature range, moved	-25+80 °C, -13+176 °F
Operation temperature range, fixed installation	-40+80 °C, -40+176 °F
UV resistance	yes
Oil resistance	168 h 100°C (according to DIN EN 60811-2-1)
Acid, lye and solvent resistance	depends on medium, concentration, temperature and duration
Flame-retardant	according to DIN EN 60332-2-2
Halogen-free	according to DIN VDE 0472 part 815, DIN EN 50267-2-1
Approvals	UL, CSA

## Contact assembly







## **Notes**

- Depending on the cable length (L), the following length tolerances apply: 0 m...<0.2 m:  $\pm$  10 mm | 0.2...4.0 m: + 40 mm |  $\geq$  4.0 m: + 1 %

- Illustrations similar

- Further cable length on request. The last three digits of the ordering information is the cable length in decimeters, e.g. ZKxxxx-xx2020 = cable length 2.00 m

Ordering information	Length
ZK4000-7700-0010	1.00 m
ZK4000-7700-0030	3.00 m
ZK4000-7700-0050	5.00 m
ZK4000-7700-0100	10.00 m

Accessories	
ZB8801-0000	torque wrench for hexagonal plugs, adjustable
ZB8801-0002	torque cable key, M12/wrench size 13, for ZB8801-0000

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