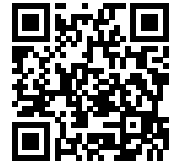
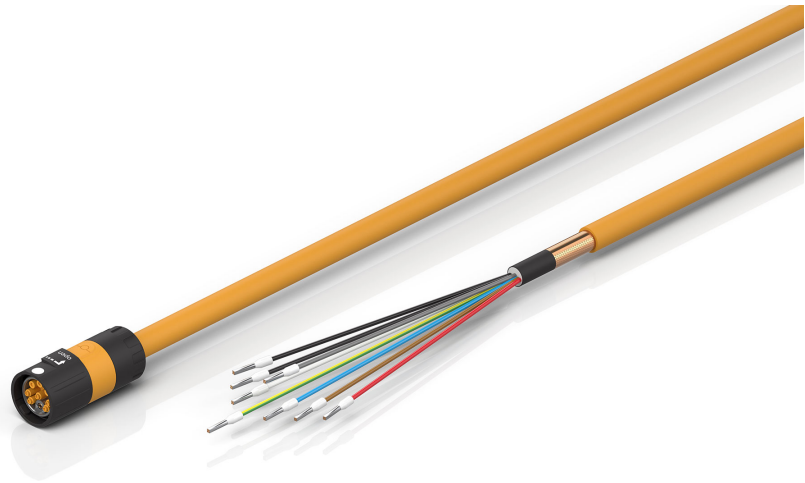


# ZK4704-0461-2xxx | Motor connection cable 0.75 mm<sup>2</sup> with itec<sup>®</sup> plug for motors with OCT, torsionable



itec<sup>®</sup> (Series 915), plug, straight, female, Power: 3+PE, Signal: 5 – open end, 8-wire + shield



## Plugs

Electrical data	Head A	Head B
Rated voltage (power)	630 V AC/DC	-
Rated voltage (signal/24V)	63 V AC/DC	-
Rated current (power)	14 A	-
Rated current (signal/24V)	3.6 A	-
Rated impulse voltage (power)	6.0 kV	-
Rated impulse voltage (signal/24V)	1.5 kV	-
Contact resistance	< 5 mΩ	-
Mechanical data		
Accessories type	Connectors/Cables	-
Installation size	itec <sup>®</sup> (Series 915)	open end
Connector type	plug	-
Configuration	straight	-

Contact type	female	-
Number of positions (face)	Power: 3+PE, Signal: 5	8-wire + shield
Wire termination	crimp connection	-
Mating cycles	500	-
Way of locking	bayonet	-
Weight per piece	0.035 kg (0.0772 lb)	-
Body color	black, similar to RAL 9011	-
Body material	zinc diecast/plastic	-
Seal	FKM	-
Clamp ring	brass/nickel plated	-
Contact carrier material	PBT, PA, UL 94 V-0	-
Contact material	brass/gold plated	-
<b>Environmental data</b>		
Special features	Max. height for operation 2000 m	-
Shock resistance	30 g (conforms to EN 60060-2-27), 11 ms; 18 shocks per direction, 3 axes	-
Vibration resistance	10 g (conforms to EN 60068-2-27), 50 Hz...2000 Hz; 1 Octave/min.; 10 cycles per axis	-
Ambient temperature (operation)	-20...+130 °C, -4...+266 °F	-
Protection rating	IP66/67 in screwed condition	-
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	-
Overtoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	-

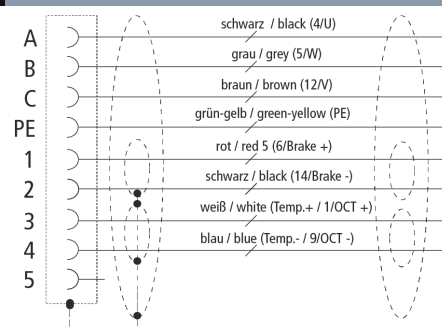
## Cable

<b>Electrical data</b>		
Rated voltage	≤ 300 V	
Operating voltage	max. 300 V AC (UL), U <sub>o</sub> /U 300/500 V (VDE)	
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)	
Mutual capacitance	Signal: 45 ± 15 pF/m, Power: 90 pF/m (at 800 Hz according to EN 50289-1-5)	
Wire resistance (power)	≤ 26.0 Ω/km (DIN EN 50395)	
Wire resistance (signal/24V)	≤ 55.0 Ω/km (DIN EN 50395)	
Wire resistance (brake)	≤ 55.0 Ω/km (DIN EN 50395)	
Characteristic impedance	Signal: 110 Ω ± 10 Ω (10 MHz) acc. to EN50289-1-11	
Dielectric strength wire/wire (power)	2 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)	
Dielectric strength wire/shield (power)	2 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)	

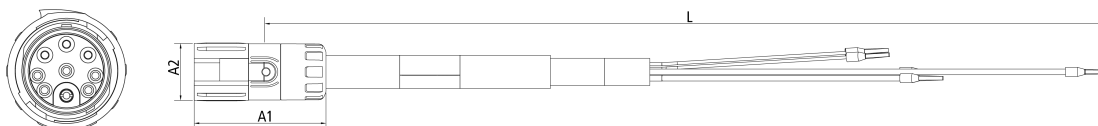
Dielectric strength wire/wire (signal/24V)	2 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Dielectric strength wire/shield (signal/24V)	2 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
<b>Mechanical data</b>	
Cross-section (power)	0.75 mm <sup>2</sup> (approx. AWG18)
Cross-section (signal)	AWG22 (approx. 0.34 mm <sup>2</sup> )
Cross-section (brake)	0.34 mm <sup>2</sup> (AWG 22)
Outer cable diameter	12.0 mm ± 0.2 mm (0.472" ± 0.0079")
Min. bending radius, moved	12 x outer cable diameter
Min. bending radius, moved in drag-chain	12 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Weight	190 kg/km (127.661 lb/1000 ft)
Conductor material (signal/24V)	copper bare
Optical covering factor of shielding	≥ 85%
Use	suitable for torsion/robotic application
Max. acceleration	30 m/s <sup>2</sup> by 5 m travel distance 15 m/s <sup>2</sup> by 10 m travel distance 5 m/s <sup>2</sup> by 20 m travel distance
Max. speed	4 m/s
Max. travel distance	20 m (horizontal) 5 m (vertical)
Max. number of cycles	5 million
Wall thickness of wire insulation (power)	0.4 mm
Wall thickness of wire insulation (signal/24V)	0.58 mm
Wall thickness of wire insulation (brake)	0.32 mm
Wall thickness of jacket	1.1 mm
Jacket color	orange
Material jacket	PUR (polyurethane)
Wire insulation material	PP (polypropylene)
Printing on the jacket	Beckhoff Automation GmbH & Co. KG - D - Verl - 4 G 0,75 + (2x0,34)/C + (2x22AWG)/C D E170315 cRUus AWM STYLE 20233 AWM I/II A/B 80°C 300V FT1 XX/YY - DESINA - XX/YY = week of production / year of production
Printing color	black
Torsion angle in °/m	max. ± 180°/m
Max. tensile load, dynamic	20 N/mm <sup>2</sup>
Max. tensile load, static	50 N/mm <sup>2</sup>
<b>Environmental data</b>	

Operation temperature range, moved	-20...+80 °C, -4...+176 °F. In drag-chain with mechanical strain: -20...+60 °C, -4...+140 °F
Operation temperature range, fixed installation	-40...+80 °C, -40...+176 °F
Oil resistance	according to DIN EN 60811-404
Flame-retardant	according to IEC 60332-1-2
CFC-free	yes
Halogen-free	DIN VDE 0472 part 815
Silicone-free	yes
UL	yes, UL E-file number: E170315
Approvals	UL758 (AWM) Style 20233 (jacket) and Style 10493 (core)

### Contact assembly



### Dimensions



A1	44.00 mm
A2	19.00 mm

### Notes

- The following length tolerances apply: 2-3 %
- Illustrations similar

### Ordering information

### Length

ZK4704-0461-2xxx	xxx = cable length in decimeters
xxx = 050	example for 5 m length
	sold by the meter, admissible total cable length 20 m



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