ZK4701-0461-2xxx | Motor extension cable 0.75 mm² with itec® plug for motors with OCT, torsionable

itec® (Series 915), plug, straight, female, Power: 3+PE, Signal: 5 – itec® (Series 915), socket, straight, male, Power: 3+PE, Signal: 5



Plugs

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

Contact type	female	male
Number of positions (face)	Power: 3+PE, Signal: 5	Power: 3+PE, Signal: 5
Wire termination	crimp connection	crimp connection
Mating cycles	500	500
Way of locking	bayonet	bayonet
Weight	0.035 kg (0.0772 lb)	0.035 kg (0.0772 lb)
Body color	black, similar to RAL 9011	-
Body material	zinc diecast/plastic	zinc diecast/plastic
Seal	FKM	FKM
Clamp ring	brass/nickel plated	brass/nickel plated
Contact carrier material	PBT, PA, UL 94 V-0	PBT, PA, UL 94 V-0
Contact material	brass/gold plated	brass/gold plated
Max. wire cross-section	-	AWG16 (1.5 mm^2)
Max. cable outer diameter	-	10.5...12.0 mm
Environmental data		
Special features	Max. height for operation 2000 m	Max. height for operation 2000 m
Shock resistance	30 g (conforms to EN 60060-2-27), 11 ms; 18 shocks per direction, 3 axes	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	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	-20...+130°C, -4...+266°F
Protection rating	IP66/67 in screwed condition	IP66/67 in screwed condition
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3 (according to VDE 0110/EN61984 part 6.19.2.2)
UL	yes, UL E-file number: E247738	-
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3 (according to VDE 0110/EN61984 part 6.19.2.2)

Cable

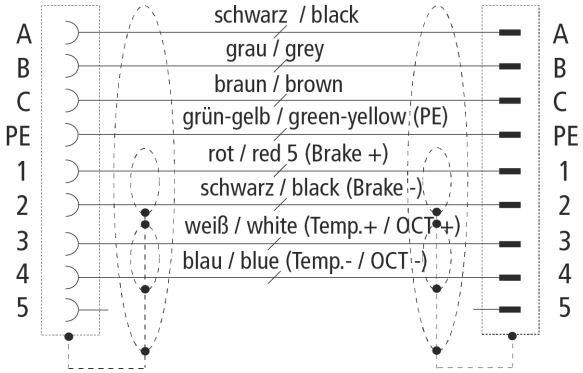
Electrical data	
Rated voltage	≤ 300 V
Operating voltage	max. 300 V AC (UL), Uo/U 300/500 V (VDE)
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)
Mutual capacitance	Signal: 45 ± 15 pF/m, Power: 90 pF/m (at 800 Hz according to EN 50289-1-5)
Wire resistance (power)	≤ 26.0 Ω/km (DIN EN 50395)
Wire resistance (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)
Mechanical data	
Cross-section (power)	0.75 mm² (approx. AWG18)
Cross-section (signal)	AWG22 (approx. 0.34 mm²)
Cross-section (brake)	0.34 mm² (AWG22)
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/s² by 5 m travel distance 15 m/s² by 10 m travel distance 5 m/s² 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

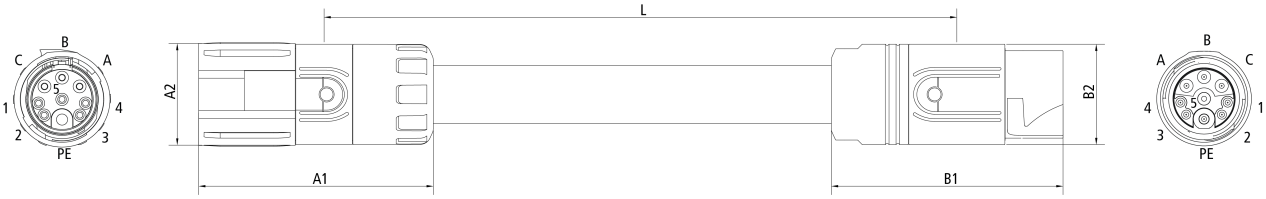
Max. tensile load, dynamic	20 N/mm²
Max. tensile load, static	50 N/mm²

Environmental data	
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	according to 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)

Pin assignment



Dimensions



A1	44.00 mm
A2	19.00 mm
B1	44.00 mm
B2	19.00 mm

Notes

- Illustrations similar

Ordering information	Length
ZK4701-0461-2005	0.50 m
ZK4701-0461-2010	1.00 m
ZK4701-0461-2015	1.50 m
ZK4701-0461-2020	2.00 m
ZK4701-0461-2030	3.00 m
ZK4701-0461-2040	4.00 m
ZK4701-0461-2050	5.00 m
ZK4701-0461-2060	6.00 m
ZK4701-0461-2070	7.00 m
ZK4701-0461-2080	8.00 m
ZK4701-0461-2090	9.00 m
ZK4701-0461-2100	10.00 m
ZK4701-0461-2110	11.00 m
ZK4701-0461-2120	12.00 m
ZK4701-0461-2130	13.00 m
ZK4701-0461-2140	14.00 m
ZK4701-0461-2150	15.00 m
ZK4701-0461-2160	16.00 m
ZK4701-0461-2170	17.00 m
ZK4701-0461-2180	18.00 m
ZK4701-0461-2190	19.00 m
ZK4701-0461-2200	20.00 m

Accessories	
ZS4000-2100	metal flange for motor cable, Series 615/915 itec® and M23, to adjust the connector, including sealings



Products marked with a crossed-out wheeled bin shall not be discarded with the normal waste stream. The device is considered as waste electrical and electronic equipment. The national regulations for the disposal of waste electrical and electronic equipment must be observed.

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