ZK4501-8025-xxxx | Motor extension cable 4 mm² with M40 speedtec® plug, drag-chain suitable

M40, plug, straight, female, Power: 4+PE, Signal: 4, Data: 2 – M40, socket, straight, male, Power: 4+PE, Signal: 4, Data: 2



Plugs

Electrical data	Head A	Head B
Rated voltage (power)	630 V AC / 850 V DC	630 V AC / 850 V DC
Rated voltage (signal/24V)	150 V AC/DC	150 V AC/DC
Rated current (power)	70 A max.	70 A max.
Rated current (signal/24V)	7 A max.	7 A max.
Rated impulse voltage (power)	6.0 kV	6.0 kV
Rated impulse voltage (signal/24V)	2.5 kV	2.5 kV
Contact resistance	< 5 mΩ (signal), < 1 mΩ (power)	< 5 mΩ (signal), < 1 mΩ (power)
Mechanical data		
Accessories type	Connectors	Connectors
Installation size	M40	M40
Connector type	plug	socket
Configuration	straight	straight
Contact type	female	male

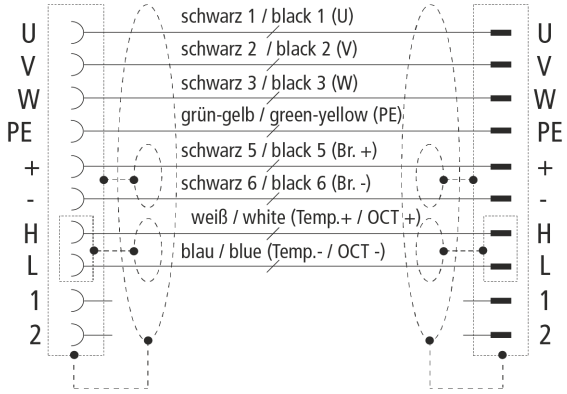
Number of positions (face)	Power: 4+PE, Signal: 4, Data: 2	Power: 4+PE, Signal: 4, Data: 2
Wire termination	crimp connection	crimp connection
Mating cycles	500	500
Way of locking	Speedtec®	Speedtec®
Weight	0.450 kg (0.9921 lb)	0.460 kg (1.0141 lb)
Body color	metal	metal
Body material	zinc diecast/nickel plated	zinc diecast/nickel plated
Seal	FKM	FKM
Clamp ring	zinc diecast/nickel plated	zinc diecast/nickel plated
Contact carrier material	PA 6.6 mod., UL 94 V-0	PA 6.6 mod., UL 94 V-0
Contact material	brass/gold plated	brass/gold plated
Environmental data		
Special features	Max. height for operation 2000 m	Max. height for operation 2000 m
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	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

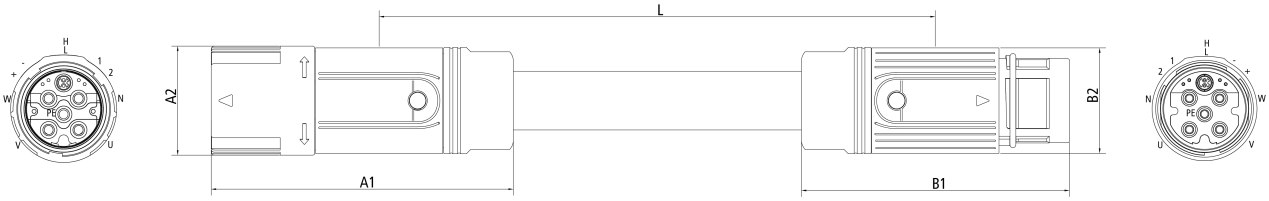
Electrical data	
Operating voltage	max. 1000 V AC (UL), Uo/U 600/1000 V (VDE)
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)
Mutual capacitance	Signal: 45 ± 15 pF/m, Power: 90 pF/m (at 800 Hz according to EN 50289-1-5)
Wire resistance (power)	≤ 4.95 Ω/km (DIN EN 50395)
Wire resistance (signal/24V)	≤ 55.0 Ω/km (DIN EN 50395)
Wire resistance (brake)	≤ 20.0 Ω/km (DIN EN 50395)
Characteristic impedance	Signal: 110 Ω ± 10 Ω (10 MHz) acc. to EN50289-1-11
Dielectric strength wire/wire (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Dielectric strength wire/shield (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Dielectric strength wire/wire (signal/24V)	3 kV 50 Hz 1 min. (DIN VDE 0472 T.509C)
Dielectric strength wire/shield (signal/24V)	3 kV 50 Hz 1 min. (DIN VDE 0472 T.509C)
Mechanical data	
Cross-section (power)	4.00 mm² (approx. AWG12)

Cross-section (signal)	AWG22 (approx. 0.34 mm²)
Cross-section (brake)	1.00 mm² (approx. AWG18)
Outer cable diameter	15.9 mm ± 0.4 mm (0.6259" ± 0.0157")
Min. bending radius, moved in drag-chain	7 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Weight	420 kg/km (282.198 lb/1000 ft)
Conductor material	copper bare
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
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
Jacket color	orange
Material jacket	TPU (thermoplastic polyurethane)
Wire insulation material	PP (polypropylene)
Printing color	black
Torsion angle in °/m	max. ± 30 °/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, HD22.10 appendix A
Flame-retardant	according to IEC 60332-1-2 UL758 cable flame test
CFC-free	yes
Halogen-free	according to DIN VDE 0472 part 815
Silicone-free	yes
RoHS compliant	yes
Approvals	UL758 (AWM) Style 21223 (jacket) and Style 10492 (core)

Pin assignment



Dimensions



A1	100.00 mm
A2	46.00 mm
B1	110.00 mm
B2	45.00 mm

Notes

- Depending on the cable length (L), the following length tolerances apply: ± 2-3%
- Illustrations similar
- The last three digits of the ordering information is the cable length in decimeters, e.g. ZK4xxx-xxxx-x020 = cable length 2.00 m

Ordering information	Length
ZK4501-8025-0010	1.00 m
ZK4501-8025-0020	2.00 m
ZK4501-8025-0030	3.00 m
ZK4501-8025-0040	4.00 m
ZK4501-8025-0050	5.00 m
ZK4501-8025-0060	6.00 m
ZK4501-8025-0070	7.00 m
ZK4501-8025-0080	8.00 m
ZK4501-8025-0090	9.00 m
ZK4501-8025-0100	10.00 m

ZK4501-8025-0110	11.00 m
ZK4501-8025-0120	12.00 m
ZK4501-8025-0130	13.00 m
ZK4501-8025-0140	14.00 m
ZK4501-8025-0150	15.00 m
ZK4501-8025-0170	17.00 m
ZK4501-8025-0180	18.00 m
ZK4501-8025-0200	20.00 m
ZK4501-8025-0210	21.00 m
ZK4501-8025-0220	22.00 m
ZK4501-8025-0230	23.00 m
ZK4501-8025-0240	24.00 m
ZK4501-8025-0250	25.00 m
ZK4501-8025-0270	27.00 m
ZK4501-8025-0280	28.00 m
ZK4501-8025-0350	35.00 m
ZK4501-8025-0450	45.00 m
ZK4501-8025-1000	100 m

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