

# ZK4800-8004-xxxx | Motor connection cable 2.5 mm<sup>2</sup> with M23 speedtec<sup>®</sup> plug, fixed installation



M23, plug, straight, female, Power: 3+PE, Signal: 5 – Pitch dimension 7.62 mm,  
plug, angled, female, 4-pin



## Plugs

Electrical data	Head A	Head B
Rated voltage (power)	630 V AC/DC	1000 V AC/DC (according to IEC 60664-1, IEC 61984), 600 V (according to UL 1059)
Rated voltage (signal/24V)	250 V AC/DC	-
Rated current (power)	30 A max.	34 A at 40 °C (according to IEC 60664-1, IEC 61984), 33 A at 40 °C (according to UL 1059)
Rated current (signal/24V)	7 A max.	-
Rated impulse voltage (power)	6.0 kV	8.0 kV
Rated impulse voltage (signal/24V)	2.5 kV	-
Contact resistance	< 5 mΩ (signal), < 3 mΩ (power)	4.5 mΩ
Insulation resistance	-	≥ 100 MΩ (according to IEC 60512)
Insulation group	-	II
Mechanical data		

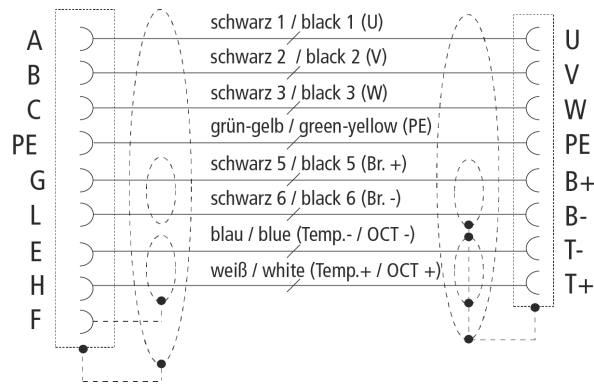
Accessories type	Connectors/Cables	Connectors/Cables
Installation size	M23	Pitch dimension 7.62 mm
Connector type	plug	plug
Configuration	straight	angled
Contact type	female	female
Number of positions (face)	Power: 3+PE, Signal: 5	4-pin
Wire termination	crimp connection	PUSH IN
Mating cycles	500	25
Way of locking	Speedtec®	flange and screw
Weight per piece	0.143 kg (0.3153 lb)	0.029 kg (0.0640 lb)
Body color	metal	black, similar to RAL 9011
Body material	zinc diecast/nickel plated	PA GF, UL 94 V-0
Seal	FKM	-
Clamp ring	brass/nickel plated	-
Contact carrier material	PA 6.6 mod., UL 94 V-0	PA GF, UL 94 V-0
Contact material	brass/gold plated	copper alloy
Max. wire cross-section	-	AWG24 ... AWG8 (0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup> )
<b>Environmental data</b>		
Special features	Max. height for operation 2000 m	-
Ambient temperature (operation)	-20...+130 °C, -4...+266 °F	-50...+125 °C, -58...+257 °F
Protection rating	IP66/67 in screwed condition	IP20
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3

## Cable

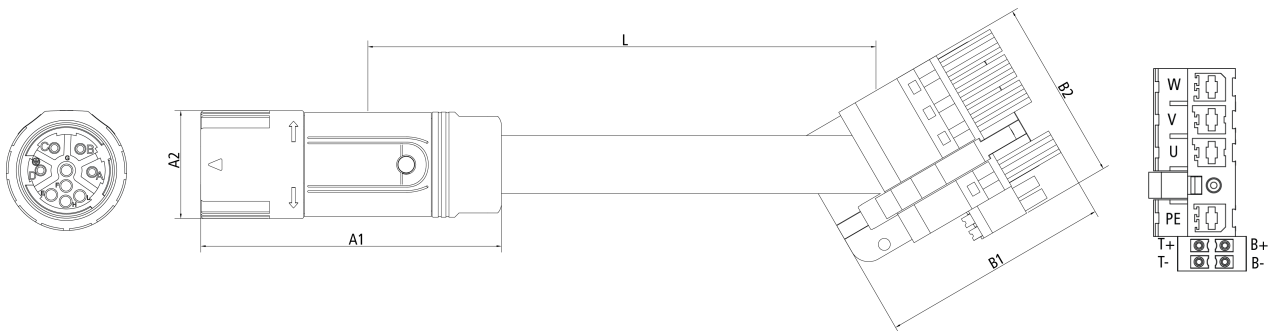
<b>Electrical data</b>		
Operating voltage	max. 1000 V AC (UL)	
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)	
Mutual capacitance	Signal: 45 ± 15 pF/m, Power: 90 pF/m (at 800 Hz according to EN 50289-1-5)	
Wire resistance (power)	≤ 7.98 Ω/km (DIN EN 50395)	
Wire resistance (signal/24V)	≤ 55.0 Ω/km (DIN EN 50395)	
Wire resistance (brake)	≤ 19.5 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)
<b>Mechanical data</b>	
Cross-section (power)	2.50 mm <sup>2</sup> (approx. AWG14)
Cross-section (signal)	AWG22 (approx. 0.34 mm <sup>2</sup> )
Cross-section (brake)	1.00 mm <sup>2</sup> (approx. AWG18)
Outer cable diameter	13,8 mm ± 0,4 mm (0,5433" ± 0,0157")
Min. bending radius, fixed installation	5 x outer cable diameter
Conductor material	copper bare
Optical covering factor of shielding	≥ 85%
Use	fixed installation
Jacket color	orange
Material jacket	PVC (polyvinyl chloride)
Wire insulation material	PP (polypropylene)
Printing color	black
Torsion angle in °/m	max. ± 30 °/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, fixed installation	-20...+80 °C, -4...+176 °F
Oil resistance	according to DIN EN 60811-2-1, HD22.10 appendix A
Flame-retardant	according to IEC 60332-1-2 UL758 cable flame test
Halogen-free	no
Silicone-free	yes
RoHS compliant	yes
Approvals	UL758 (AWM) Style 2570 (jacket) and Style 10492 (core)

**Contact assembly**



## Dimensions



A1	79.00 mm
A2	28.00 mm
B1	60.00 mm
B2	47.00 mm

## Notes

- Depending on the cable length (L), the following length tolerances apply:  $\pm 2-3\%$
- 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

ZK4800-8004-xxxx

xxxx = cable length in decimeters

xxxx = 0050

example for 5 m length

sold by the meter, admissible total cable length see documentation of Servo Drive

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