

# ZK4500-0015-xxxx | Motor connection cable 4 mm<sup>2</sup> with M40 plug, drag-chain suitable



M40, plug, straight, female, 8-pin – plug, angled, female, 4-pin – plug, straight, female, 5-pin



## Plugs

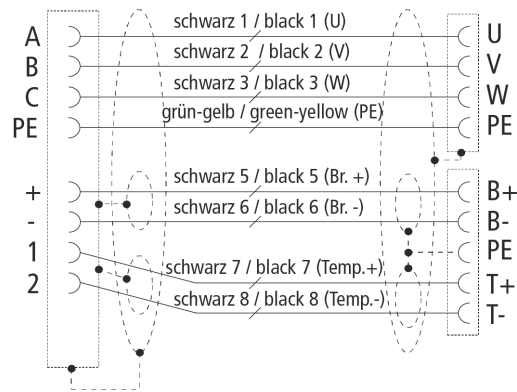
Electrical data	Head A	Head B	Head C
Rated voltage (power)	630 V AC/DC	1000 V AC/DC (according to IEC 60664-1, IEC 61984), 600 V (according to UL 1059)	-
Rated voltage (signal/24V)	250 V AC/DC	-	320 V (according to IEC 60664-1, IEC 61984), 300 V (according to UL 1059)
Rated current (power)	75 A max.	41 A at 40 °C (according to IEC 60664-1, IEC 61984), 40.5 A at 40 °C (according to UL 1059)	-
Rated current (signal/24V)	30 A max.	-	14.5 A at 40 °C (according to IEC 60664-1, IEC 61984), 10 A at 40 °C (according to UL 1059)
Rated impulse voltage (power)	6.0 kV	8.0 kV	-
Rated impulse voltage (signal/24V)	4.0 kV	-	2.5 kV

Contact resistance	< 3 mΩ (signal), < 1 mΩ (power)	4.5 mΩ	< 5 mΩ
Insulation resistance	-	≥ 100 MΩ (according to IEC 60512)	≥ 100 MΩ (according to IEC 60512)
Insulation group	-	II	IIIa
<b>Mechanical data</b>			
Accessories type	Connector/cable	Connector/cable	Connector/cable
Installation size	M40	-	-
Connector type	plug	plug	plug
Configuration	straight	angled	straight
Contact type	female	female	female
Number of positions (face)	8-pin	4-pin	5-pin
Wire termination	crimp connection	Clamping yoke connection	Clamping yoke connection
Recommended torque, screw termination	-	0.5...0.6 Nm	0.2...0.25 Nm
Recommended torque, screw flange	-	0.6 Nm	0.15...0.2 Nm
Mating cycles	500	25	25
Way of locking	Speedtec®	screw	screw
Weight per piece	0.417 kg (0.9193 lb)	0.052 kg (0.1146 lb)	0.004 kg (0.0088 lb)
Body colour	metal	black, similar to RAL 9011	black, similar to RAL 9011
Body material	zinc diecast/nickel plated	PA GF, UL 94 V-0	PBT, UL 94 V-0
Seal	FKM	-	-
Clamp ring	zinc diecast/nickel plated	-	-
Contact carrier material	PA 6.6 mod., UL 94 V-0	PA GF, UL 94 V-0	PBT, UL 94 V-0
Contact material	brass/gold plated	copper alloy	copper alloy
Max. wire cross section	-	AWG24...AWG8	AWG28...AWG14
<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	-50...+100 °C, -58...+212 °F
Protection class	IP 66/67 in screwed condition	IP 20	IP 20
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3	3
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3	3

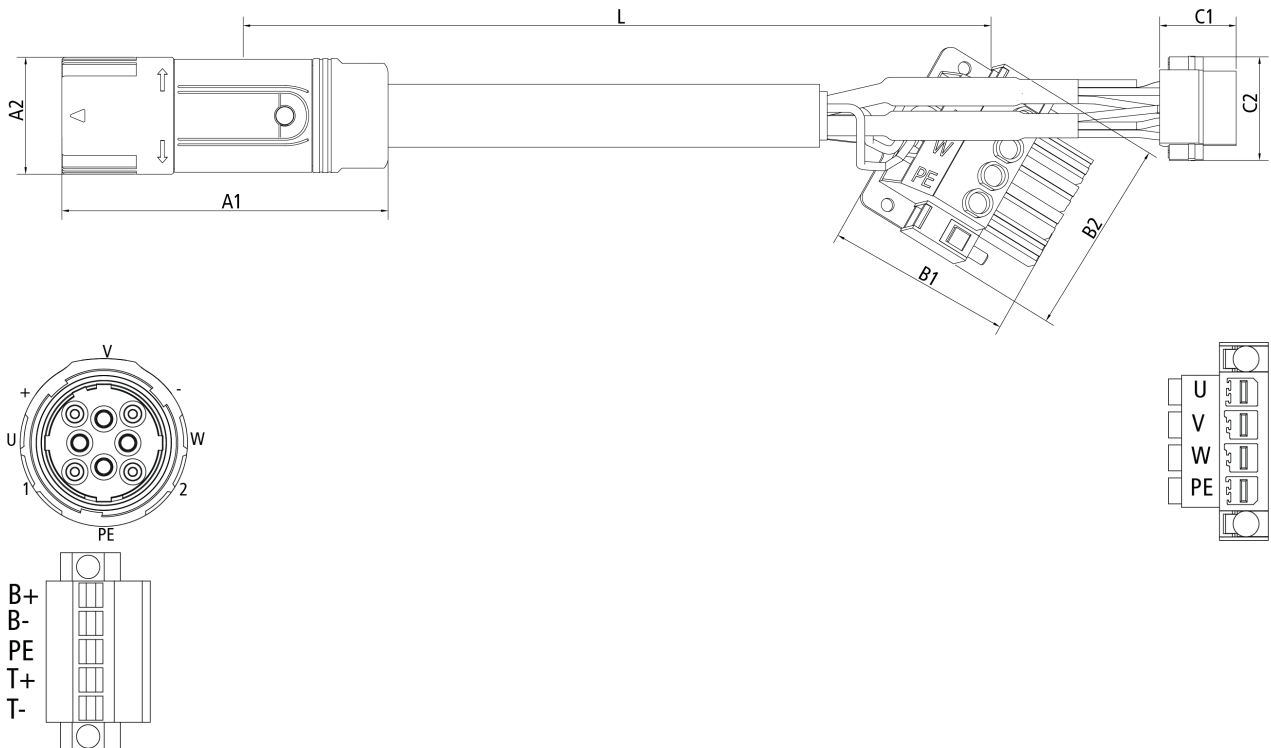
## Cable

Electrical data	
Operating voltage	max. 1000 V AC (UL), U <sub>o</sub> /U 600/1000 V (VDE)
Test voltage	4000 V
Mechanical data	
Cross section (power)	4.00 mm <sup>2</sup> (approx. AWG12)
Cross section (signal)	1 mm <sup>2</sup> (approx. AWG18)
Cross section (brake)	1.50 mm <sup>2</sup> (approx. AWG16)
Min. bending radius, moved in drag chain	10 x outer cable diameter
Weight	420 kg/km (282.198 lb/1000 ft)
Outer cable diameter	15.5 mm ± 0.3 mm (0.6102" ± 0.0118")
Conductor material	Copper bare
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
Max. acceleration	20 m/s <sup>2</sup>
Max. speed	3 m/s
Max. number of cycles	5 million
Jacket colour	orange
Material jacket	PUR (polyurethane)
Wire insulation material	TPM
Printing colour	black
Torsion angle in °/m	max. ± 30 °/m
Environmental data	
Operation temperature range, moved	-30...+80 °C, -22...+176 °F. in drag-chain with mechanical strain: -30...+60 °C, -22...+140 °F
Operation temperature range, fixed installation	-45...+80 °C, -49...+176 °F
Oil resistance	according to DIN EN 60811-404
Flame-retardant	according to IEC 60332-1
Halogen-free	yes
Approvals	UL-Style 21223

## Contact assembly



Dimensions



A1	100.00 mm
A2	46.00 mm
B1	45.00 mm
B2	45.00 mm
C1	19.00 mm
C2	25.00 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
ZK4500-0015-xxxx	xxxx = cable length in decimetres
xxxx = 0050	example for 5 m length
ZK4502-0015-xxxx	motor cable $\geq 25$ m if motor choke is required
	sold by the metre, admissible total cable length see documentation of Servo Drive

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