ZK4800-8527-xxxx | Motor connection cable 10 mm² with M40 speedtec® plug, drag-chain suitable

M40, plug, straight, female, Power: 4+PE, Signal: 4, Data: 2 – plug, angled, female, 4-pin – Pitch dimension 3.50 mm, plug, straight, female, 5-pin



Plugs

Electrical data	Head A	Head B	Head C
Rated voltage (power)	630 V AC / 850 V DC	1000 V AC/DC (according to IEC 60664–1, IEC 61984), 600 V (accordig to UL 1059)	-
Rated voltage (signal/24V)	150 V AC/DC	-	320 V (according to IEC 60664–1, IEC 61984), 300 V (accordig to UL 1059)
Rated current (power)	70 A max.	70.6 A at 40°C (according to IEC 60664–1, IEC 61984), 60 A at 40°C (according to UL 1059)	-
Rated current (signal/24V)	7 A max.	-	10 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)	2.5 kV	-	2.5 kV

Contact resistance	< 5 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	-	I	IIIa
Mechanical data			
Accessories type	Connectors	Connectors	Connectors
Installation size	M40	-	Pitch dimension 3.50 mm
Connector type	plug	plug	plug
Configuration	straight	angled	straight
Contact type	female	female	female
Number of positions (face)	Power: 4+PE, Signal: 4, Data: 2	4-pin	5-pin
Wire termination	crimp connection	Clamping yoke connection	Clamping yoke connection
Recommended torque, screw termination	-	1.2...1.5 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®	flange and screw	screw
Weight	0.450 kg (0.9921 lb)	0.057 kg (0.1257 lb)	0.004 kg (0.0088 lb)
Body color	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	-	AWG22...AWG4	AWG28...AWG14 (0.2 mm^2... 1.5 mm^2)
Environmental data			
Special features	Max. height for operation 2000 m	-	-
Ambient temperature (operation)	-20...+130°C, -4...+266°F	-50...+130°C, -58...+266°F	-50...+100°C, -58...+212°F
Protection rating	IP66/67 in screwed condition	IP20	IP20
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3	3
UL	yes, UL E-file number: E247738	-	yes, UL E-file number: E60693

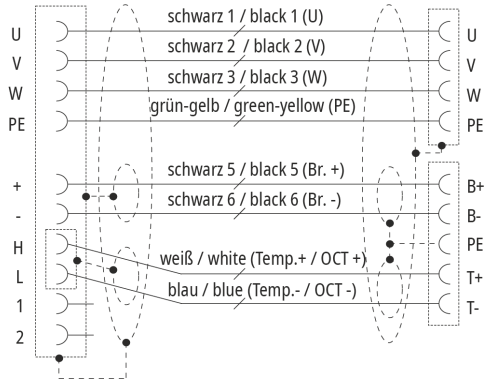
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3	3

Cable

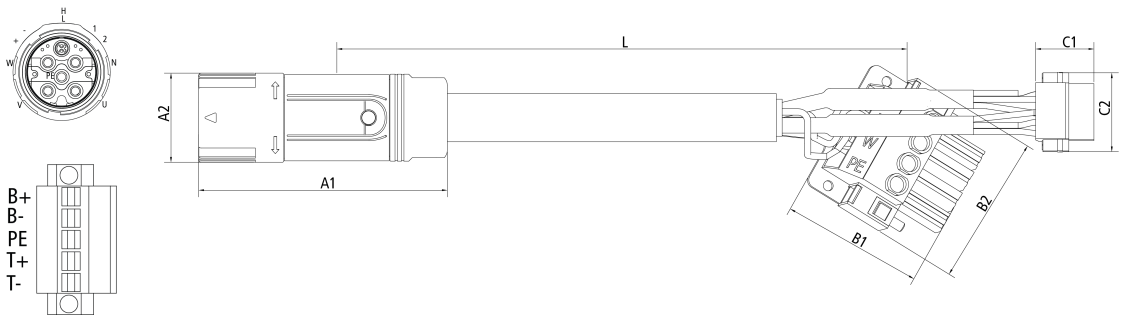
Electrical data	
Operating voltage	max. 1000 V AC (UL), Uo/U 600/1000 V (VDE)
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)
Mutual capacitance	Signal: 45 ± 15 pF/m, Power: 90 pF/m (at 800 Hz according to EN 50289-1-5)
Wire resistance (power)	≤ 1.91 Ω/km (DIN EN 50395)
Wire resistance (signal/24V)	≤ 55.0 Ω/km (DIN EN 50395)
Wire resistance (brake)	≤ 13.3 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)	10 mm^2 (approx. AWG8)
Cross-section (signal)	AWG22 (approx. 0.34 mm^2)
Cross-section (brake)	1.50 mm^2 (approx. AWG16)
Outer cable diameter	20.9 mm ± 0.5 mm (0.8228" ± 0.0197")
Min. bending radius, moved in drag-chain	10 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Weight	760 kg/km (510.644 lb/1000 ft)
Conductor material	copper bare
Optical covering factor of shielding	≥ 85%
Use	drag-chain suitable
Max. acceleration	30 m/s^2 by 5 m travel distance 15 m/s^2 by 10 m travel distance 5 m/s^2 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	137.00 mm
B2	52.00 mm
C1	19.00 mm
C2	25.00 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
ZK4800-8527-0030	3.00 m
ZK4800-8527-0050	5.00 m
ZK4800-8527-0060	6.00 m
ZK4800-8527-0070	7.00 m
ZK4800-8527-0080	8.00 m
ZK4800-8527-0100	10.00 m
ZK4800-8527-0150	15.00 m
ZK4800-8527-0170	17.00 m
ZK4800-8527-0180	18.00 m
ZK4800-8527-0190	19.00 m
ZK4800-8527-0200	20.00 m
ZK4800-8527-0210	21.00 m
ZK4800-8527-0220	22.00 m
ZK4800-8527-0240	24.00 m
ZK4800-8527-0280	28.00 m
ZK4800-8527-0300	30.00 m
ZK4800-8527-0310	31.00 m
ZK4800-8527-0600	60.00 m

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