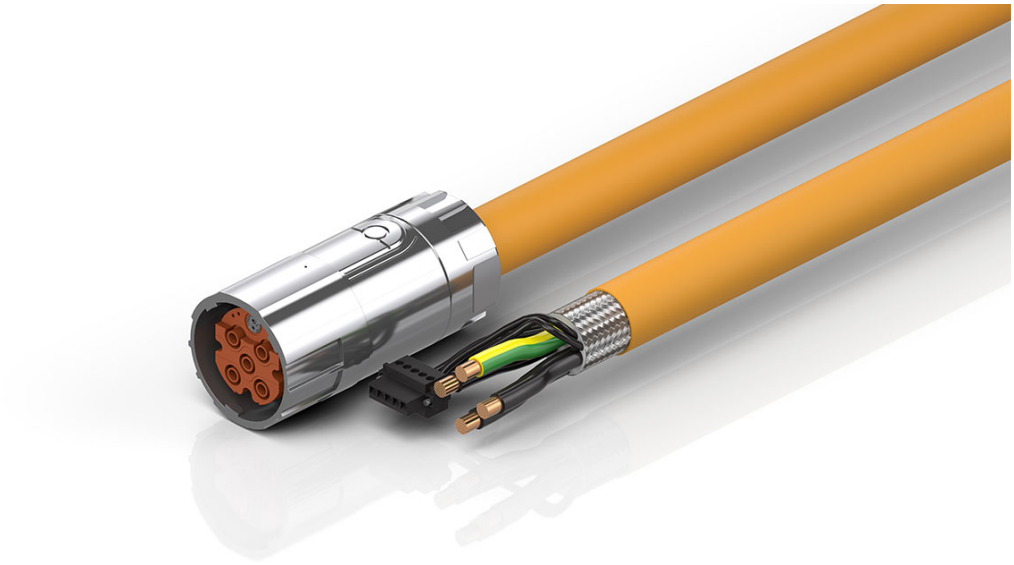
# ZK4504-8018-xxxx | Motor connection cable 16 mm² with M40 speedtec® plug, drag-chain suitable

## M40, plug, straight, female, Power: 4+PE, Signal: 4, Data: 2 – Pitch dimension 5.08 mm, plug, straight, female, 5-pin – open end, 8-wire + shield



## Plugs

| Electrical data | Head A | Head B | Head C |
|---|---|---|---|
| Rated voltage (power) | 630 V AC / 850 V DC | - | - |
| Rated voltage (signal/24V) | 150 V AC/DC | 300 V (accordig to UL 1059) | - |
| Rated current (power) | 70 A max. | - | - |
| Rated current (signal/24V) | 7 A max. | 16 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 | - | - |
| Rated impulse voltage (signal/24V) | 2.5 kV | 4.0 kV | - |
| Contact resistance | < 5 mΩ (signal), < 1 mΩ (power) | < 5 mΩ | - |
| Insulation resistance | - | ≥ 100 MΩ (according to IEC 60512) | - |
| Insulation group | - | IIIa | - |

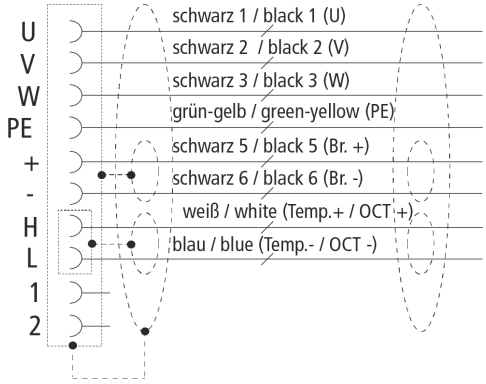
| Mechanical data | | | |
|---|---|---|---|
| Accessories type | Connectors | Connectors | - |
| Installation size | M40 | Pitch dimension 5.08 mm | open end |
| Connector type | plug | plug | - |
| Configuration | straight | straight | - |
| Contact type | female | female | - |
| Number of positions (face) | Power: 4+PE, Signal: 4, Data: 2 | 5-pin | 8-wire + shield |
| Wire termination | crimp connection | Clamping yoke connection | - |
| Recommended torque, screw termination | - | 0.4...0.5 Nm | - |
| Mating cycles | 500 | 25 | - |
| Way of locking | Speedtec® | - | - |
| Weight | 0.450 kg (0.9921 lb) | 0.008 kg (0.0176 lb) | - |
| Body color | metal | black, similar to RAL 9011 | - |
| Body material | zinc diecast/nickel plated | PBT, UL 94 V-0 | - |
| Seal | FKM | - | - |
| Clamp ring | zinc diecast/nickel plated | - | - |
| Contact carrier material | PA 6.6 mod., UL 94 V-0 | PBT, UL 94 V-0 | - |
| Contact material | brass/gold plated | copper alloy | - |
| Max. wire cross-section | - | AWG26...AWG12 (0.14 $mm^2$...4 $mm^2$) | - |
| **Environmental data** | | | |
| Special features | Max. height for operation 2000 m | - | - |
| Ambient temperature (operation) | -20...+130°C, -4...+266°F | -50...+100°C, -58...+212°F | - |
| Protection rating | IP66/67 in screwed condition | - | - |
| Pollution level | 3 (according to VDE 0110/EN61984 part 6.19.2.2) | 3 | - |
| UL | yes, UL E-file number: E247738 | - | - |
| Overvoltage category | 3 (according to VDE 0110/EN61984 part 6.19.2.2) | 3 | - |

## Cable

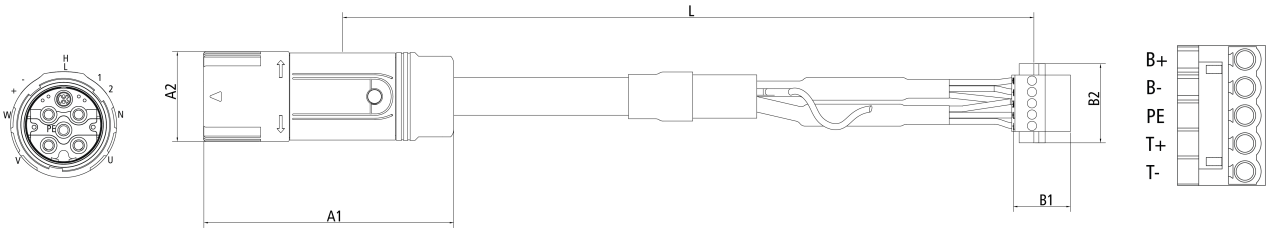
| Electrical data | |
|---|---|
| Operating voltage | max. 1000 V AC (UL) |

| | |
|---|---|
| Insulation resistance | ≥ 500 MΩ * km (DIN EN 50395) |
| Wire resistance (power) | ≤ 1.21 Ω/km (DIN EN 50395) |
| Wire resistance (brake) | ≤ 13.3 Ω/km (DIN EN 50395) |
| 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) |
| **Mechanical data** | |
| Cross-section (power) | 16 mm² (approx. AWG5) |
| Cross-section (brake) | 1.50 mm² (approx. AWG16) |
| Outer cable diameter | 23.0 mm ± 0.5 mm (0.9055" ± 0.0197") |
| Min. bending radius, moved in drag-chain | 10 x outer cable diameter |
| Min. bending radius, fixed installation | 5 x outer cable diameter |
| Conductor material | copper bare |
| Optical covering factor of shielding | ≥ 85% |
| Use | drag-chain suitable |
| Max. acceleration | 5 m/s² (depending on travel distance) |
| Max. speed | 3 m/s |
| Max. number of cycles | 10 million |
| Wall thickness of wire insulation (power) | 0.7 mm |
| Wall thickness of wire insulation (brake) | 0.4 mm |
| Wall thickness of jacket | 1.6 mm |
| Jacket color | orange |
| Material jacket | PUR (polyurethane) |
| Wire insulation material | PP (polypropylene) |
| Printing color | black |
| Torsion angle in °/m | max. ± 30 °/m |
| **Environmental data** | |
| Operation temperature range, moved | -30...+80°C, -22...+176°F, in drag-chain applications: -20...+60°C, -4...+140°F |
| Operation temperature range, fixed installation | -50...+80°C, -58...+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 | according to DIN VDE 0472 part 815 |
| Silicone-free | yes |
| RoHS compliant | yes |
| Approvals | UL758 (AWM) Style 20234 (jacket) and Style 10492 (core) |

## Pin assignment




## Dimensions




| | |
|---|---|
| A1 | 100.00 mm |
| A2 | 46.00 mm |
| B1 | 20.00 mm |
| B2 | 27.00 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 |
|---|---|
| ZK4504-8018-0010 | 1.00 m |
| ZK4504-8018-0030 | 3.00 m |
| ZK4504-8018-0050 | 5.00 m |
| ZK4504-8018-0070 | 7.00 m |
| ZK4504-8018-0080 | 8.00 m |
| ZK4504-8018-0090 | 9.00 m |
| ZK4504-8018-0100 | 10.00 m |
| ZK4504-8018-0110 | 11.00 m |
| ZK4504-8018-0120 | 12.00 m |

| | |
|---|---|
| ZK4504-8018-0150 | 15.00 m |
| ZK4504-8018-0160 | 16.00 m |
| ZK4504-8018-0170 | 17.00 m |
| ZK4504-8018-0180 | 18.00 m |
| ZK4504-8018-0200 | 20.00 m |
| ZK4504-8018-0300 | 30.00 m |
| ZK4504-8018-0370 | 37.00 m |

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