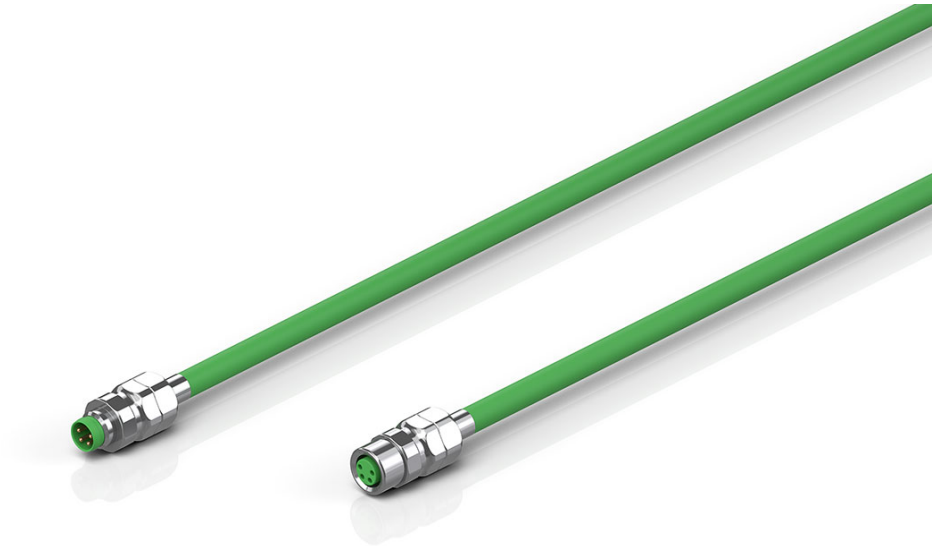
# ZK1090-3132-7xxx | EtherCAT cable, IP67, hygienic design, PVC, AWG26, fixed installation

## M8, plug, straight, male, 4-pin, A-coded – M8, socket, straight, female, 4-pin, A-coded



## Plugs

| Electrical data | Head A | Head B |
|---|---|---|
| Rated voltage | 50 V AC/60 V DC (according to IEC 61076-2-104) | 50 V AC/60 V DC (according to IEC 61076-2-104) |
| Rated current | 4 A at 40°C (according to IEC 61076-2-104) | 4 A at 40°C (according to IEC 61076-2-104) |
| Shielding | yes | yes |
| Contact resistance | < 5 mΩ | < 5 mΩ |
| Insulation resistance | ≥ 100 GΩ (according to IEC 60512) | ≥ 100 MΩ (according to IEC 60512) |
| **Mechanical data** | | |
| Installation size | M8 | M8 |
| Connector type | plug | socket |
| Configuration | straight | straight |
| Contact type | male | female |
| Number of positions (face) | 4-pin | 4-pin |
| Coding | A-coded | A-coded |

| | | |
|---|---|---|
| Recommended torque, nut | 0.4 Nm | 0.4 Nm |
| Mating cycles | ≥ 250 | ≥ 250 |
| Way of locking | screw | screw |
| Weight | 0.028 kg (0.0617 lb) | 0.028 kg (0.0617 lb) |
| Body color | metal | metal |
| Body material | 1.4404 (stainless steel) | 1.4404 (stainless steel) |
| Coupling nut material | 1.4404 (stainless steel) | 1.4404 (stainless steel) |
| Seal | elastomers | elastomers |
| Contact carrier color | green | green |
| Contact carrier material | thermoplastic | thermoplastic |
| Contact plating | Au over Ni | Au over Ni |
| Contact material | CuZn | CuZn |
| **Environmental data** | | |
| Special features | halogen-free, flame-resistant as per IEC 60332-1-2, oil-resistant as per DIN EN 60811-2-1 | - |
| RoHS compliant | yes | yes |
| Ambient temperature (operation) | -40...+85°C, -40...+185°F | -40...+85°C, -40...+185°F |
| Protection rating | IP67 in screwed condition (according to IEC 60529) | IP67 in screwed condition (according to IEC 60529) |
| Pollution level | 3/2 (according to IEC 60664-1) | 3/2 (according to IEC 60664-1) |

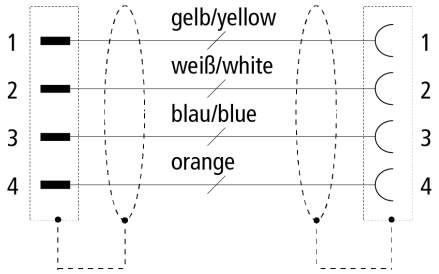
## Cable

| **Electrical data** | |
|---|---|
| Rated voltage | max. 300 V (not for high voltage purposes) |
| Attenuation of shielding | ≥ 43 dB |
| Insulation resistance | ≥ 500 MΩ/km |
| Unbalanced capacitance to ground | 1600 pF/km |
| Mutual capacitance | 52 nF/km |
| Characteristic impedance (Ethernet) | 100 Ω ±5 Ω (100 MHz) (EN 50289-1-11) |
| Loop resistance (Ethernet) | 280 Ω/km |
| Unbalanced resistance (Ethernet) | 2 % |
| Dielectric strength wire/wire (Ethernet) | 2000 V |
| Dielectric strength wire/shield (Ethernet) | 2000 V |
| Signal running time (Ethernet) | 5.3 ns/m |
| Electrical parameters (Ethernet) | based on Cat.5 |
| Test voltage | ≥ 2000 V |

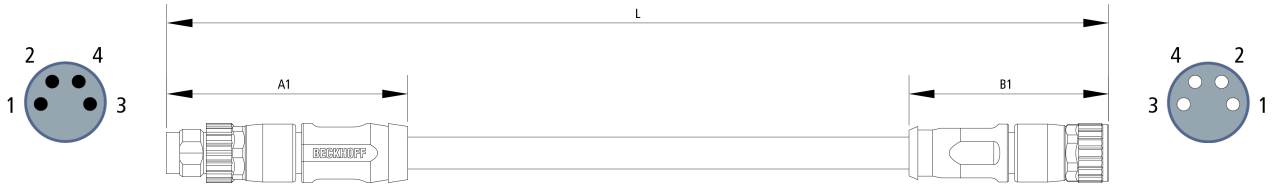
| Mechanical data | |
|---|---|
| Cable structure (Ethernet) | star quad |
| Conductor construction (Ethernet) | 7 x 0.167 |
| Cross-section (Ethernet) | 1 x 4 x 0.14 mm² (AWG26) |
| Outer cable diameter | 4.9 mm ± 0.2 mm (0.193" ± 0.0079") |
| Min. bending radius, moved | 7 x outer cable diameter |
| Min. bending radius, fixed installation | 5 x outer cable diameter |
| Weight | 33 kg/km (22.2 lb/1000ft) |
| Conductor material (Ethernet) | bare copper |
| Shielding | aluminum-clad foil, braiding of tinned copper wires |
| Optical covering factor of shielding (Ethernet) | ≥ 80 % |
| Use | fixed installation |
| Wall thickness of wire insulation (Ethernet) | 0.25 mm |
| Jacket color | green |
| Material jacket | PVC (polyvinyl chloride) |
| Wire color code | yellow, orange, white, blue |
| Wire insulation material | PE (polyethylene) |
| Printing on the jacket | "sequential length in metres" Industrial Ethernet Cat5 flex *E130266 AWM STYLE 2464 80 °C 300 V* ZB9030 "month/year" "internal order number" |
| Printing color | black |
| **Environmental data** | |
| Operation temperature range, fixed installation | -40...+80°C, -40...+176°F |
| Flame-retardant | according to IEC 60332-1-2 |
| Halogen-free | no |
| UL | yes, UL E-file number: E130266 |

| Attenuation | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Max. insertion loss | | | | | | | | |
| Frequency [MHz] | **1** | **4** | **10** | **16** | **20** | **31.25** | **62.5** | **100** |
| [db/100 m] | 3.2 | 6.0 | 9.5 | 12.1 | 13.6 | 17.1 | 24.8 | 32.0 |
| [db/100 ft] | 1 | 1.8 | 2.9 | 3.7 | 4.1 | 5.2 | 7.6 | 9.8 |
| Min. near-end crosstalk attenuation | | | | | | | | |
| Frequency [MHz] | **1** | **4** | **10** | **16** | **20** | **31.25** | **62.5** | **100** |
| [db/100 m] | 65.3 | 56.3 | 50.3 | 47.2 | 45.8 | 42.9 | 38.4 | 35.3 |
| [db/100 ft] | 19.9 | 17.2 | 15.3 | 14.4 | 14 | 13.1 | 11.7 | 10.8 |

## Pin assignment




## Dimensions




| | |
|---|---|
| A1 | 28.0 mm |
| A2 | Ø 12.0 mm |
| B1 | 28.2 mm |
| B2 | Ø 12.0 mm |

# Notes

- Depending on the cable length (L), the following length tolerances apply:
  0 m...<0.2 m: ± 10 mm | 0.2...4.0 m: + 40 mm | ≥ 4.0 m: + 1%
- Illustrations similar
- Further cable length on request.

| Ordering information | Length |
|---|---|
| ZK1090-3132-7010 | 1.00 m |
| ZK1090-3132-7030 | 3.00 m |
| ZK1090-3132-7050 | 5.00 m |

Further length on request

| Accessories | |
|---|---|
| ZB8801-0000 | torque wrench for hexagonal plugs, adjustable |
| ZB8801-0001 | torque cable key, M8/wrench size 9, for ZB8801-0000 |



Products marked with a crossed-out wheeled bin shall not be discarded with the normal waste stream. The device is considered as waste electrical and electronic equipment. The national regulations for the disposal of waste electrical and electronic equipment must be observed.

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