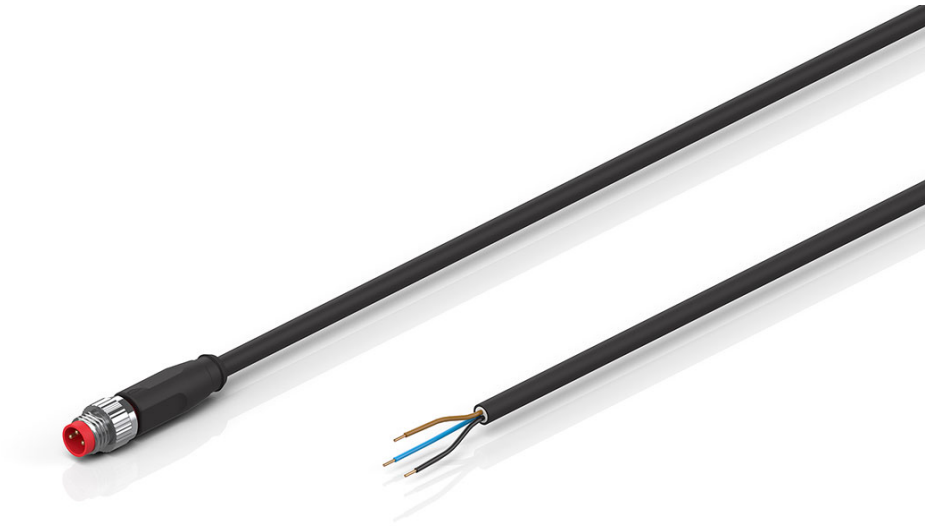
# ZK2000-2100-6xxx | Sensor cable, PUR, 3 x 0.34 mm², torsion resistant

## M8, plug, straight, male, 3-pin, A-coded – open end, 3-wire



## Plugs

| Electrical data | Head A | Head B |
|---|---|---|
| Rated voltage | 50 V AC/60 V DC (according to IEC 61076-2-104) | - |
| Rated current | 4 A at 40°C (leaning on IEC 61076-2-104) | - |
| Rated current (signal/24V) | 4 A at 40°C (acc.to IEC 61076-2-104) | - |
| Shielding | no | - |
| Insulation resistance | ≥ 10 GΩ (according to IEC 60512-2) | - |
| **Mechanical data** | | |
| Installation size | M8 | open end |
| Connector type | plug | - |
| Configuration | straight | - |
| Contact type | male | - |
| Number of positions (face) | 3-pin | 3-wire |
| Coding | A-coded | - |
| Wire termination | crimp connection | - |

| | | |
|---|---|---|
| Recommended torque, nut | 0.4 Nm | - |
| Mating cycles | ≥ 100 (according to IEC 60512-9a) | - |
| Way of locking | screw | - |
| Weight | 0.028 kg (0.0617 lb) | - |
| Body color | black | - |
| Body material | TPU, UL94 | - |
| Coupling nut material | CuZn, Ni | - |
| Seal | FPM | - |
| Contact carrier color | red | - |
| Contact carrier material | TPU GF, UL 94 | - |
| Contact plating | Ni, Au gal. | - |
| Contact material | 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 | - |
| Ambient temperature (operation) | -30...+80°C, -22...+176°F | - |
| Protection rating | IP67 in screwed condition (according to IEC 60529) | - |
| Pollution level | 3/2 (according to IEC 60664-1) | - |

## Cable

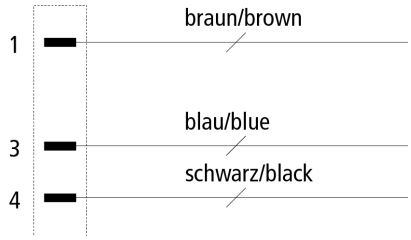
| | |
|---|---|
| **Electrical data** | |
| Rated voltage | 300 V |
| Insulation resistance | ≥ 500 MΩ/km |
| Wire resistance (signal/24V) | ≤ 58.0 Ω/km (20°C) |
| Test voltage | ≥ 2000 V |
| **Mechanical data** | |
| Conductor construction (signal/24V) | 42 x 0.10 mm, conductor category 6 according to DIN VDE 0295 |
| Cross-section | 3 x 0.34 mm² (AWG22) |
| Outer cable diameter | 4.9 mm ± 0.2 mm (0.193" ± 0.0079") |
| Min. bending radius, moved | 7.5 x outer cable diameter |
| Min. bending radius, fixed installation | 4 x outer cable diameter |
| Weight | 33.7 kg/km (22.65 lb/1000 ft) |
| Conductor material (signal/24V) | copper bare |
| Shielding | no |

| | |
|---|---|
| Use | suitable for torsion/robotic applications and drag-chain suitable |
| Max. acceleration | 5 m/s² |
| Max. speed | 3.3 m/s |
| Max. travel distance | 100 m |
| Max. number of cycles | 10 million |
| Jacket color | black |
| Material jacket | PUR (polyurethane) |
| Material jacket, further characteristics of | weld-spatter resistant, low adhesion |
| Wire color code | brown, blue, black |
| Wire insulation material | TPE (thermoplastic elastomer) |
| Printing on the jacket | XXXXm Beckhoff Automation GmbH & Co. KG -Germany-Sensor ZB9044-3x0,34mm² E170315 cRUus AWM STYLE 20233 AWM I/II A/B 80°C 300V FT1 MM/YY CE RoHS |
| Printing color | white |
| Torsion angle in °/m | max. ± 360°/m |
| Torsion speed | 15 cycle/min. |
| Number of torsion cycles | 10 million |
| Claimed torsion length | 2 m |

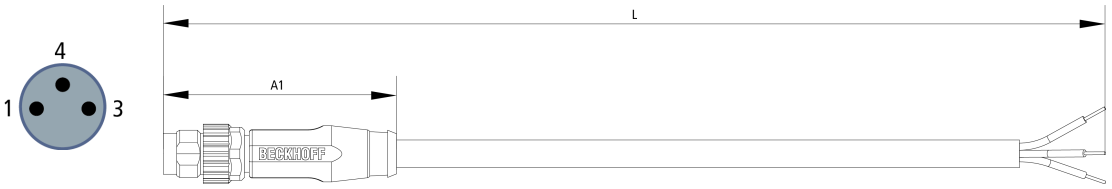
## Environmental data

| | |
|---|---|
| Operation temperature range, moved | -30°C... +105°C, -22°F...+221°F, UL: up to +80°C (+176°F) |
| Operation temperature range, fixed installation | -40...+105°C, -40...+221°F |
| Oil resistance | very good oil and chemical resistance |
| LABS-free | yes |
| Flame-retardant | according to IEC 60332-1 |
| Halogen-free | yes |
| Silicone-free | yes |
| UL | yes, UL E-file number: E170315 |

## Pin assignment




## Dimensions




| | |
|---|---|
| A1 | 39.60 mm |
| A2 | Ø 10.1 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.

| CE, UL | |
|---|---|
| CE | yes |
| UL | yes, UL E-file number: E480185 |

| Ordering information | Length |
|---|---|
| ZK2000-2100-6020 | 2.00 m |
| ZK2000-2100-6050 | 5.00 m |
| ZK2000-2100-6100 | 10.00 m |
| ZK2000-2100-6400 | 40.00 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 |
| ZB8803-0003 | Flange/Panel feed-through for M12 pre-assembled, for fixing the connector, plastic, including screws, washers and lock nuts |



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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