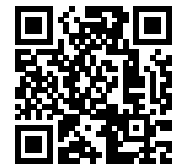
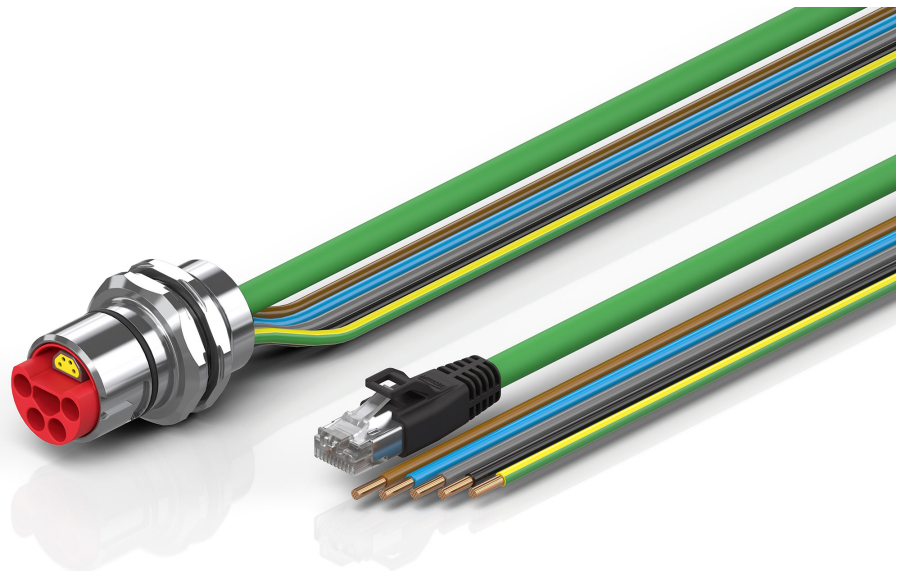


# ZK7314-AX00-Axxx | B23, ENP cable, PUR, 5 G 4.0 mm<sup>2</sup> + (1 x 4 x AWG22), drag chain suitable, key 1 (2 x 24 V DC + PE)



B23, flange front assembly, straight, short, male+female, pins 4+PE+4, EtherCAT-coded – RJ45, plug, straight, male, 4-pin – open end, 5-wire



## Plugs

| Electrical data                  | Head A  | Head B | Head C |
|----------------------------------|---|--------|--------|
| Rated voltage                    | -   | 150 V  | -      |
| Rated voltage (Ethernet)         | 60 V DC   | -      | -      |
| Rated current (Ethernet)         | 4 A at 40 °C  | -      | -      |
| Rated voltage (power)            | 630 V AC / 850 V DC, 600V AC / DC (UL)                              | -      | -      |
| Rated current (power)            | 28 A at 45 °C   | -      | -      |
| Rated current                    | -   | 1.5 A  | -      |
| Rated impulse voltage (power)    | 6.0 kV  | -      | -      |
| Rated impulse voltage (Ethernet) | 1.0 kV  | -      | -      |
| Voltage proof (contact/contact)  | 1.5 kV (power - Ethernet), 3.31 kV AC (power), 1.0 kV AC (Ethernet) | -      | -      |
| Shielding                        | -   | yes    | -      |

|                                  |   |                                    |          |
|----------------------------------|---|------------------------------------|----------|
| Shielding (Ethernet)             | yes   | -                                  | -        |
| Contact resistance               | < 10 mΩ (signal),<br>< 5 mΩ (power)   | -                                  | -        |
| Insulation resistance            | ≥ 100 MΩ (according to IEC 60512)   | ≥ 10 GΩ (according to IEC 60512-2) | -        |
| <b>Mechanical data</b>           |   |                                    |          |
| Installation size                | B23   | RJ45                               | open end |
| Connector type                   | flange front assembly   | plug                               | -        |
| Configuration                    | straight, short   | straight                           | -        |
| Contact type                     | male+female   | male                               | -        |
| Number of positions (face)       | pins 4+PE+4   | 4-pin                              | 5-wire   |
| Coding                           | EtherCAT-coded  | -                                  | -        |
| Mechanical coding                | key 1 (2 x 24 V DC + PE)  | -                                  | -        |
| Wire termination                 | crimp connection  | -                                  | -        |
| Mating cycles                    | ≥ 100   | ≥ 750                              | -        |
| Way of locking                   | bayonet   | -                                  | -        |
| Weight per piece                 | 0.200 kg (0.441 lb)   | -                                  | -        |
| Body color                       | -   | black                              | -        |
| Body material                    | -   | TPU, UL 94 HB                      | -        |
| Flange housing material          | GD-Zn, Ni   | -                                  | -        |
| Seal                             | NBR   | -                                  | -        |
| Contact carrier material         | PA, UL 94   | PC UL 94 V-0                       | -        |
| Contact carrier color (Ethernet) | yellow  | -                                  | -        |
| Contact carrier color (power)    | red   | -                                  | -        |
| Contact plating                  | Au over Ni  | Ni, Au gal.                        | -        |
| Contact material                 | copper alloy  | CuZn                               | -        |
| <b>Environmental data</b>        |   |                                    |          |
| Shock resistance                 | 50 g (490 m/s <sup>2</sup> ) conforms to IEC 60512-6c, 11 ms; 18 shocks per direction, 3 axes                   | -                                  | -        |
| Vibration resistance             | 5 g (50 m /s <sup>2</sup> ) conforms to IEC 60512-6d, 10 Hz. ... 500 Hz.; 10 cycles per axis; 6 h full duration | -                                  | -        |
| RoHS compliant                   | yes   | yes                                | -        |
| Ambient temperature (operation)  | -30...+80 °C, -22...+176 °F   | -40...+70 °C, -40...+158 °F        | -        |
| Protection rating                | IP65/67 in screwed condition (according to IEC 60529)   | IP20                               | -        |
| Pollution level                  | 3/2 (according to IEC 60664-1)  | -                                  | -        |

Approvals

UL 2237: File E484763

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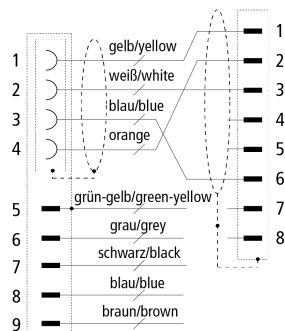
## Cable

| Electrical data                                 |  |
|---|--|
| Rated voltage (Ethernet)                        | max. 300 V (peak value, not for high voltage purposes) |
| Rated voltage (power)                           | 600 V  |
| Attenuation of shielding                        | ≥ 40 dB  |
| Insulation resistance                           | ≥ 500 MΩ/km  |
| Unbalanced capacitance to ground                | 1600 pF/km   |
| Mutual capacitance                              | 52 nF/km (1 kHz)                                       |
| Characteristic impedance (Ethernet)             | 100 Ω ±15 Ω (100 MHz)                                  |
| Loop resistance (Ethernet)                      | ≤ 115 Ω/km   |
| Differential impedance (Ethernet)               | 250 Ω/km   |
| Unbalanced resistance (Ethernet)                | 2 %  |
| Dielectric strength wire/wire (Ethernet)        | 1000 V DC/700 V AC                                     |
| Dielectric strength wire/shield (Ethernet)      | 1000 V DC/700 V AC                                     |
| 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 (power)                  | 19 x 0.30 mm   |
| Conductor construction (Ethernet)               | 7 x 0.25 mm  |
| Cross-section (power)                           | 5 x 4.0 mm <sup>2</sup> (approx. AWG12)                |
| Cross-section (Ethernet)                        | 1 x 4 x 0.34 mm <sup>2</sup> (AWG 22)                  |
| Min. bending radius, moved                      | 7.5 x outer cable diameter                             |
| Min. bending radius, fixed installation         | 5 x outer cable diameter                               |
| Weight  | 61 kg/km (41 lb/1000 ft)                               |
| Outer cable diameter                            | 6.5 mm ± 0.2 mm (0.2559" ± 0.0079")                    |
| Conductor material (Ethernet)                   | copper, tinned   |
| Shielding                                       | aluminum-clad foil, braiding of tinned copper wires    |
| Optical covering factor of shielding (Ethernet) | ≥ 85 %   |
| Use   | drag-chain suitable                                    |
| Max. acceleration                               | 4 m/s <sup>2</sup>                                     |
| Max. speed                                      | 4 m/s  |

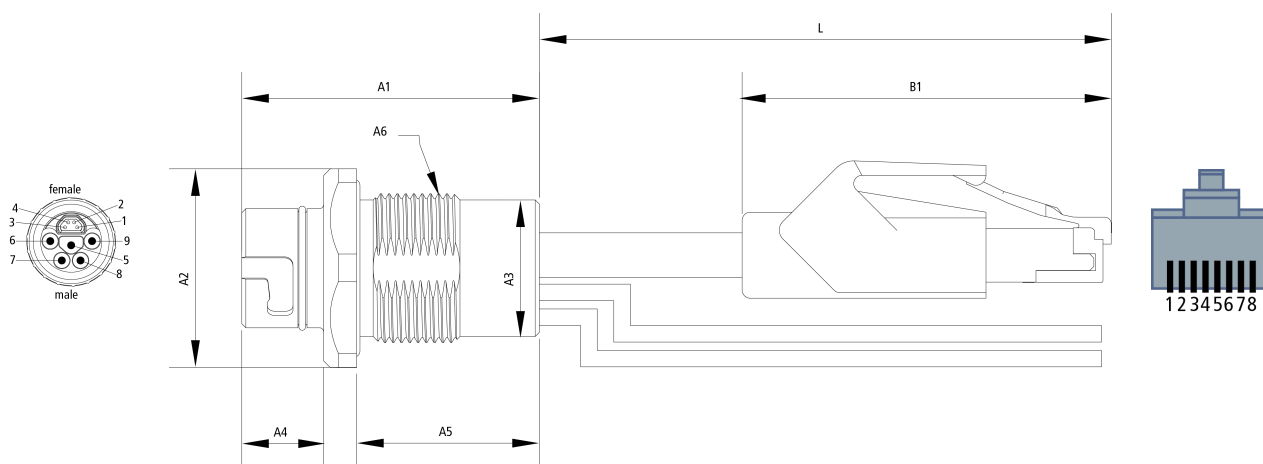
|   |  |
|---|--|
| Max. number of cycles                           | 3 million  |
| Wall thickness of wire insulation (Ethernet)    | 0.375 mm   |
| Jacket color                                    | green  |
| Material jacket                                 | PUR (polyurethane)   |
| Wire color code                                 | yellow, orange, white, blue (Ethernet) gray, green/yellow, black, blue, brown (Power)  |
| Wire insulation material                        | PP polypropylene (Ethernet), PPE polyphenyl ether (Power)  |
| Printing on the jacket                          | BECKHOFF ZB9020 Industrial Ethernet / EtherCAT Trailing Cable * CAT5PLUS * 22AWG (SHIELDED) (UL) E119100 CMX 75°C VERIFIED (UL) CAT 5E PATCH CABLE FRNC **"length in meters" |
| Printing color                                  | black  |
| <b>Environmental data</b>                       |  |
| Operation temperature range, moved              | -40...+70 °C, -40...+158 °F  |
| Operation temperature range, fixed installation | -20...+60 °C, -4...+140 °F   |
| UV resistance                                   | yes  |
| Oil resistance                                  | according to DIN EN 60811-2-1  |
| Acid, lye and solvent resistance                | depends on medium, concentration, temperature and duration   |
| LABS-free                                       | yes  |
| Flame-retardant                                 | yes  |
| CFC-free  | yes  |
| Halogen-free                                    | yes  |
| Silicone-free                                   | yes  |
| Approvals                                       | UL-Style AWM 20963   |

|                                     |   |
|-------------------------------------|---|
| <b>Attenuation</b>                  |   |
| Max. insertion loss                 |   |
| Frequency [MHz]                     | <b>1      4      10      16      20      31.25      62.5      100</b> |
| [db/100 m]                          | 2.1    4.0    6.3    8.0    9.0    11.4    16.5    21.3               |
| [db/100 ft]                         | 0.6    1.2    1.9    2.4    2.7    3.5    5       6.5                 |
| Min. near-end crosstalk attenuation |   |
| Frequency [MHz]                     | <b>1      4      10      16      20      31.25      62.5      100</b> |
| [db/100 m]                          | 80    76.0    70.0    65.0    63.0    60.0    55.0    50.0            |
| [db/100 ft]                         | 24.4    23.2    21.3    19.8    19.2    18.3    16.8    15.2          |

|                         |  |
|-------------------------|--|
| <b>Contact assembly</b> |  |
|-------------------------|--|



## Dimensions



|    |          |
|----|----------|
| A1 | 47.50 mm |
| A2 | 30.00 mm |
| A3 | 23.80 mm |
| A4 | 25.40 mm |
| A5 | 17.10 mm |
| A6 | M25      |
| B1 | 43.80 mm |

## Notes

- Depending on the cable length (L), the following length tolerances apply:  
0 m...3.0 m: + 100 mm | 3.0...10.0 m:  $\pm 100$  mm |  $\geq 10.0$  m:  $\pm 2$  %
- Illustrations similar
- Delivery with counter nut
- Further cable length on request. The last three digits of the ordering information is the cable length in decimeters, e.g. ZKxxxx-xxxx-x020 = cable length 2.00 m

## CE, UL

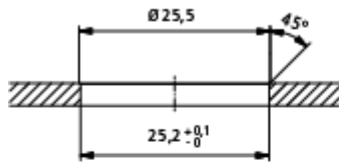
CE yes

UL

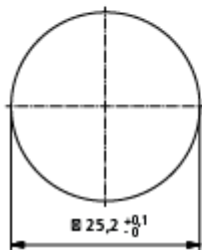
yes UL2237, UL E-file number: E484763

## Installation dimensions

## Hole/ Durchgangsloch

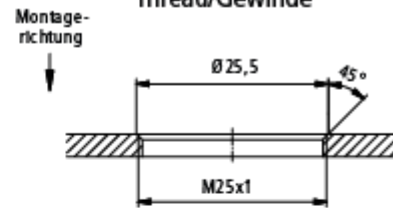


Panel cut out without twist  
protection/  
Montageausschnitt ohne  
Verdrehsicherung

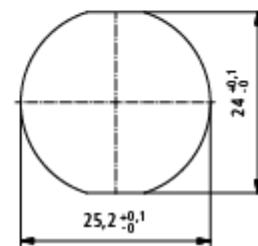


min. wall thickness 1 mm/  
Min. Wandstärke 1 mm  
max. wall thickness 5 mm/  
Max. Wandstärke 5 mm

## Thread/Gewinde



Panel cut out with twist  
protection/  
Montageausschnitt mit  
Verdrehsicherung



## Ordering information

## Length

|                  |        |
|------------------|--------|
| ZK7314-AX00-A005 | 0.50 m |
| ZK7314-AX00-A010 | 1.00 m |
| ZK7314-AX00-A020 | 2.00 m |

## Accessories

|             |   |
|-------------|---|
| ZS7300-B003 | B23 protection cap, plug, plastic, IP67, packaging unit = 10 pieces                 |
| ZS7300-B004 | B23 protection cap, plug, metal, IP67, packaging unit = 5 pieces                    |
| ZS7300-B009 | B23 color coding flange for front/rear assembly, red, packaging unit = 10 pieces    |
| ZS7300-B010 | B23 color coding flange for front/rear assembly, yellow, packaging unit = 10 pieces |
| ZS7300-B011 | B23 color coding flange for front/rear assembly, blue, packaging unit = 10 pieces   |
| ZS7300-B012 | B23 color coding flange for front/rear assembly, green, packaging unit = 10 pieces  |
| ZS7300-B013 | B23 color coding flange for front/rear assembly, orange, packaging unit = 10 pieces |
| ZS7300-B014 | B23 color coding flange for front/rear assembly, gray, packaging unit = 10 pieces   |



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