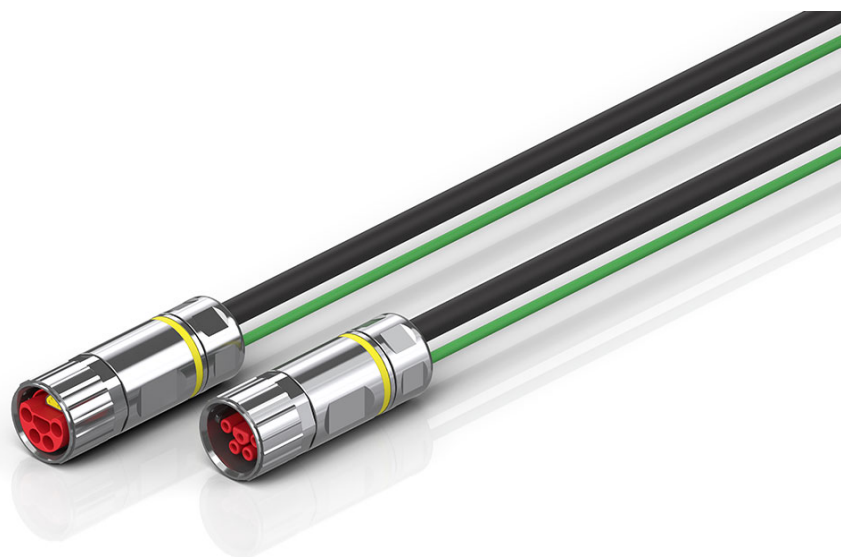


# ZK7370-3031-Axxx | B23, ENP cable, two hole sealing, PUR, 5 G 4.0 mm<sup>2</sup> + (1 x 4 x AWG22), fixed installation, key 1 (2 x 24 V DC + PE)



B23, plug, straight, male+female, pins 4+PE+4, EtherCAT-coded – B23, plug, straight, female+male, pins 4+PE+4, EtherCAT-coded



## Plugs

Electrical data	Head A	Head B
Rated voltage (Ethernet)	24 V DC	24 V DC
Rated current (Ethernet)	4 A at 40 °C	4 A at 40 °C
Rated voltage (power)	630 V AC / 850 V DC, 600V AC / DC (UL)	630 V AC / 850 V DC, 600V AC / DC (UL)
Rated current (power)	28 A at 45 °C	28 A at 45 °C
Rated impulse voltage (power)	6.0 kV	6.0 kV
Rated impulse voltage (Ethernet)	1.0 kV	1.0 kV
Shielding	yes	yes
Contact resistance	< 10 mΩ (signal), < 5 mΩ (power)	< 10 mΩ (signal), < 5 mΩ (power)
Insulation resistance	≥ 100 MΩ (according to IEC 60512)	≥ 100 MΩ (according to IEC 60512)
Mechanical data		
Installation size	B23	B23
Connector type	plug	plug

Configuration	straight	straight
Contact type	male+female	female+male
Number of positions (face)	pins 4+PE+4	pins 4+PE+4
Coding	EtherCAT-coded	EtherCAT-coded
Wire termination	crimp connection	crimp connection
Mating cycles	≥ 100	≥ 100
Way of locking	bayonet	bayonet
Body material	<b>CuZn, Ni</b>	<b>CuZn, Ni</b>
Coupling nut material	GD-Zn, Ni	GD-Zn, Ni
Seal	NBR	NBR
Contact carrier material	PA, UL 94	PA, UL 94
Contact carrier color (Ethernet)	yellow	yellow
Contact carrier color (power)	red	red
Contact plating	Ni, Au gal.	Ni, Au gal.
Contact material	copper alloy	copper alloy
Max. wire cross-section (power)	AWG12/4.0 mm <sup>2</sup>	AWG12/4.0 mm <sup>2</sup>
Max. wire cross-section (Ethernet)	AWG22/0.34 mm <sup>2</sup>	AWG22/0.34 mm <sup>2</sup>
Max. cable outer diameter	15.0...16.0 mm	15.0...16.0 mm
<b>Environmental data</b>		
Ambient temperature (operation)	-20...+90 °C, -4...+194 °F	-20...+90 °C, -4...+194 °F
Protection rating	IP65/67 in screwed condition (according to IEC 60529)	IP65/67 in screwed condition (according to IEC 60529)
Pollution level	3/2 (according to IEC 60664-1)	3/2 (according to IEC 60664-1)
Approvals	UL 2237: File E484763	UL 2237: File E484763

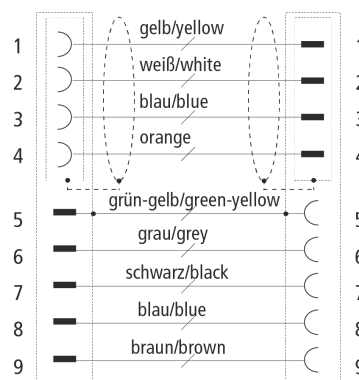
## Cable

Electrical data	Cable by meter A	Cable by meter B
Rated voltage	600 V / 1000 V	30 V (according to IEC 61076-2-101)
Operating voltage	max. 1000 V AC (UL)	-
Attenuation of shielding	-	≥ 50 dB (30...100 MHz)
Insulation resistance	-	≥ 500 MΩ/km
Unbalanced capacitance to ground	-	≤ 2000 pF/km
Mutual capacitance	-	nom. 50 nF/km
Characteristic impedance (Ethernet)	-	100 Ω ±15 Ω
Loop resistance (Ethernet)	-	≤ 260 Ω/km
Unbalanced resistance (Ethernet)	-	2 %

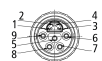
Dielectric strength wire/wire (Ethernet)	-	1 kV AC (50 Hz, 1 min.)/1 kV DC (50 Hz)
Dielectric strength wire/shield (Ethernet)	-	1 kV AC (50 Hz, 1 min.)/1 kV DC (50 Hz)
Signal running time (Ethernet)	-	4.8 ns/m
Electrical parameters (Ethernet)	-	based on Cat.5
Test voltage	4000 V	1000 V, 50 Hz, 1 min.
<b>Mechanical data</b>		
Cable structure (Ethernet)	-	star quad
Conductor construction	fine stranded according to VDE 0295	-
Conductor construction (Ethernet)	-	7-strand
Cross-section	5 G 4 mm <sup>2</sup> (AWG12)	-
Cross-section (Ethernet)	-	1 x 4 x 0.14 mm <sup>2</sup> (AWG26)
Outer cable diameter	14.9 mm ± 0.20 mm (0.587" ± 0.00787")	3.65 mm ± 0.15 mm (0.1496" ± 0.0059")
Min. bending radius, moved	15 x outer cable diameter	15 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter	8 x outer cable diameter, 4 x outer cable diameter (fixed with single bend)
Weight	-	30.0 kg/km (20.2 lb/1000 ft)
Conductor material	-	copper bare
Conductor material (power)	copper bare	-
Shielding	-	braiding of tinned copper wires
Optical covering factor of shielding (Ethernet)	-	≥ 85 %
Use	fixed installation	fixed installation
Jacket color	black	green
Material jacket	-	PUR (polyurethane)
Wire color code	green/yellow, blue, brown, black, grey	yellow, orange, white, blue
Wire insulation material	-	PO (Polyolefine)
Printing on the jacket	-	00000m Beckhoff Automation GmbH & Co. KG - Germany – Industrial Ethernet / EtherCAT ZB9034 Cat5e AWG26/7 E170315 AWM 20963 AWM I A/B 80°C 30V Fa.No.xxxxx
Printing color	white	black
<b>Environmental data</b>		
Operation temperature range, moved	-25...+70 °C, -13...+158 °F	-30...+70 °C, -22...+158 °F
Operation temperature range, fixed installation	-40...+80 °C, -40...+176 °F	-40...+80 °C, -40...+176 °F
UV resistance	yes	good
Oil resistance	-	according to DIN EN 60811-404 (7x24 h/90 °C)

Acid, lye and solvent resistance	-	depends on medium, concentration, temperature and duration
Flame-retardant	according to IEC 60332-1-2	Horizontal flame test according to UL 1581 part 1090
CFC-free	-	yes
Halogen-free	according to IEC 60754-1	according to IEC 60754 or DIN VDE 0472 part 815
Silicone-free	-	yes
CE	yes	-
UL	Yes	yes, UL E-file number: E170315

### Contact assembly



### Dimensions



A1	ca. 80.0 mm
A2	29.0 mm
B1	approx. 80.0 mm
B2	29.0 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
- Further cable length on request. The last three digits of the ordering information is the cable length in decimeters, e.g. ZKxxx-xxx-x020 = cable length 2.00 m

CE, UL	
CE	yes
UL	yes UL2237, UL E-file number: E484763

Ordering information	Length
ZK7370-3031-A010	1.00 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-B005	B23 color coding connector/square flange, red, packaging unit = 10 pieces
ZS7300-B006	B23 color coding connector/square flange, yellow, packaging unit = 10 pieces
ZS7300-B007	B23 color coding connector/square flange, blue, packaging unit = 10 pieces
ZS7300-B008	B23 color coding connector/square flange, green, packaging unit = 10 pieces
ZS7300-B015	B23 color coding connector/square flange, orange, packaging unit = 10 pieces
ZS7300-B016	B23 color coding connector/square flange, gray, packaging unit = 10 pieces
ZB8802-0003	assembly tool for B23 connector, AF27



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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