

ZK7A26-3100-0xxx | B23, ECP cable, PUR, 3 G 2.5 mm² + 2 x 1.5 mm² (1 x 4 x AWG22), drag chain suitable, key 3 (user-defined voltage)

B23, plug, straight, female+ female, pins 4+PE+4, P-coded – open end

Plugs

Electrical data	Head A	Head B
Rated voltage (Ethernet)	24 V DC	-
Rated current (Ethernet)	3 A at 40 °C	-
Rated voltage (power)	630 V AC / 850 V DC, 600V AC / DC (UL)	-
Rated current (power)	28 A at 40 °C	-
Rated current (power)	28 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 (Ethernet)	yes	-
Contact resistance	< 10 mΩ (signal), < 5 mΩ (power)	-
Insulation resistance	≥ 100 MΩ (according to IEC 60512)	-
Mechanical data		
Installation size	B23	open end
Connector type	plug	-
Configuration	straight	-
Contact type	female+ female	-
Number of positions (face)	pins 4+PE+4	-
Coding	P-coded	-
Mechanical coding	key 3 (300 V, PE, 24 V)	-
Wire termination	crimp connection	-
Mating cycles	≥ 100	-
Way of locking	bayonet	-
Weight per piece	0.100 kg (0.220 lb)	-
Body colour	black	-
Body material	TPU, UL 94 HB	-

Coupling nut material	GD-Zn, Ni	-
Seal	NBR, FPM	-
Contact carrier material	PA 6, UL 94 V0	-
Contact carrier colour (Ethernet)	red	-
Contact carrier colour (power)	red	-
Contact plating	Au over Ni	-
Contact material	copper alloy	-
Environmental data		
Shock resistance	50 g (490 m/s ²) conforms to IEC 60512-6c, 11 ms; 18 shocks per direction, 3 axes	-
Vibration resistance	5 g (50 m/s ²) conforms to IEC 60512-6d, 10 Hz. ... 500 Hz.; 10 cycles per axis; 6 h full duration	-
RoHS compliant	yes	-
Ambient temperature (operation)	-30...+80 °C, -22...+176 °F	-
Protection class	IP 65/67 in screwed condition (according to IEC 60529)	-
Pollution level	3/2 (according to IEC 60664-1)	-
Approvals	UL 2237: File E484763	-

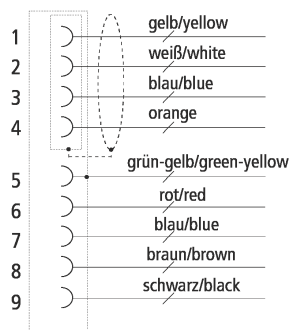
Cable

Electrical data		
Operating voltage	≤ 1000 V AC	
Mutual capacitance wire/wire (Ethernet)	nom. 55 nF/km	
Attenuation of shielding	≥ 40 dB (30...100 MHz)	
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)	
Mutual capacitance	AWG 22: nom. 55 nF/km	
Wire resistance (power)	2.5 mm ² : ≤ 8.3 Ω/km, 1.5 mm ² : ≤ 14.0 Ω/km	
Wire resistance (Ethernet)	≤ 58.0 Ω/km according to DIN EN 50395	
Characteristic impedance (Ethernet)	100 Ω ±5 Ω (100 MHz)	
Dielectric strength wire/wire (power)	4 kV 50 Hz 1 min.	
Dielectric strength wire/shield (power)	4 kV 50 Hz 1 min.	
Dielectric strength wire/wire (Ethernet)	4 kV 50 Hz 1 min.	
Dielectric strength wire/shield (Ethernet)	4 kV 50 Hz 1 min.	
Test voltage	4000 V, 50 Hz, 1 min. (wire/wire and wire/screen)	
Mechanical data		
Cable structure (Ethernet)	star quad	
Conductor construction (Ethernet)	7-strand	
Cross section (power)	3 x 2.5 mm ² (approx. AWG14) + 2 x 1.5 mm ² (approx. AWG16)	
Cross section (Ethernet)	1 x 4 x 0.34 mm ² (AWG 22)	
Min. bending radius, moved	7 x outer cable diameter	
Min. bending radius, fixed installation	4 x outer cable diameter	
Weight	210 kg/km (140.7 lb/1000 ft)	
Outer cable diameter	11.9 mm ± 0.4 mm (0.469" ± 0.0157")	
Conductor material (power)	copper bare	
Conductor material (Ethernet)	bare copper	
Shielding	braiding of tinned copper wires, metallised plastic fleece, aluminium-clad foil	
Optical covering factor of shielding (Ethernet)	≥ 85 %	
Optical covering factor of shielding (total)	no	
Use	drag-chain suitable	
Max. acceleration	30 m/s ²	
Max. speed	4 m/s	
Max. travel distance	20 m	
Max. number of cycles	5 million	
Wall thickness of wire insulation (power)	0.45 mm	
Jacket colour	black (similar to RAL 9005) with red stripe (similar to RAL 3020)	
Material jacket	PUR (polyurethane)	

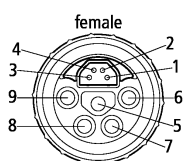
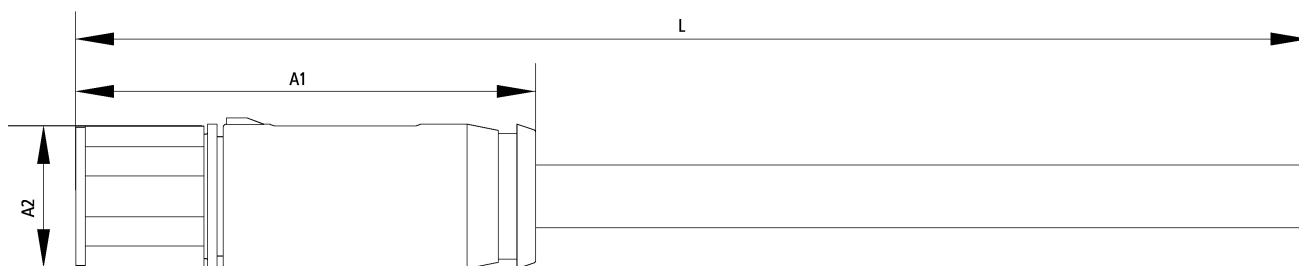
Wire colour code	yellow, orange, white, blue (Ethernet), black, red (1.5 mm ²), green/yellow, brown, blue (2.5 mm ²)
Wire insulation material	PO (Polyolefine)
Printing on the jacket	xxxx m Beckhoff Automation GmbH & Co. KG - Germany - EtherCAT P ZB7306 3 G 2,5 + 2 x 1,5 + (4xAWG22)/C E63216 c us AWM 21223 AWM I/II A/B 80°C 600V FT1 RoHS MM/JJ (MM/JJ= month of production/year of production) outer diameter: (11.9 ± 0.4) mm
Printing colour	white
Torsion angle in °/m	max. ± 30 °/m
Environmental data	
Operation temperature range, moved	-20...+60 °C, -4...+140 °F
Operation temperature range, fixed installation	-40...+90 °C, -40...+194 °F
UV resistance	yes
Oil resistance	yes
Acid, lye and solvent resistance	depends on medium, concentration, temperature and duration
LABS-free	yes
Flame-retardant	according to UL 758 (cUL-FT1)
Halogen-free	yes
Silicone-free	yes
Approvals	cULus AWM Style 21223 80°C 600V

Attenuation								
Max. insertion loss								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	-	4.2	6.8	8.6	9.7	12.3	18.0	23.6
[db/100 ft]	-	1.3	2.1	2.6	3	3.7	5.5	7.2
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

Contact assembly



Dimensions



A1	93.60 mm
A2	28.50 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: ± 100 mm | ≥ 10.0 m: ± 2 %

- Illustrations similar

- 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

Ordering information	Length
ZK7A26-3100-0050	5.00 m

Accessories	
ZS7300-B003	B23 protection cap, plug, plastic, IP 67, packaging unit = 10 pieces
ZS7300-B004	B23 protection cap, plug, metal, IP 67, 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

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