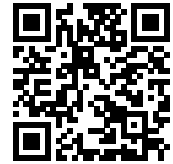
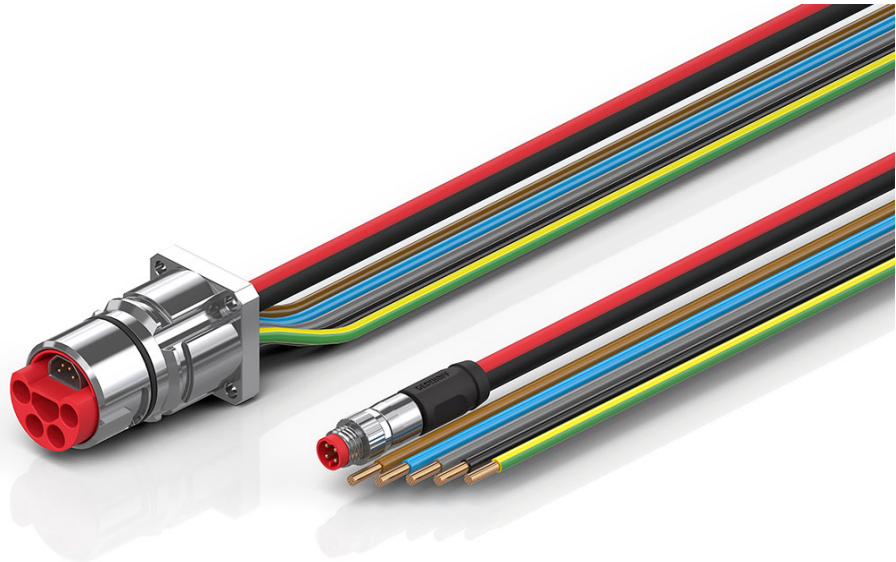


ZK7714-BX00-0xxx | B23, ECP cable, PUR, 5 G 4.0 mm² + (1 x 4 x AWG22), drag-chain suitable, key 2 (400 V AC)



B23, square flange, straight, long, male+male, pins 4+PE+4, P-coded – M8, plug, straight, male, 4-pin, P-coded – open end, 5-wire



Plugs

Electrical data	Head A	Head B	Head C
Rated voltage	-	24 V DC (according to IEC 61076-2-104)	-
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	-	3 A at 40°C (according to IEC 61076-2-104)	-
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), < 5 mΩ (power)	-	-
Insulation resistance	≥ 100 MΩ (according to IEC 60512)	≥ 100 GΩ (according to IEC 60512)	-
Mechanical data			
Installation size	B23	M8	open end
Connector type	square flange	plug	-
Configuration	straight, long	straight	-
Contact type	male+male	male	-
Number of positions (face)	pins 4+PE+4	4-pin	5-wire
Coding	P-coded	P-coded	-
Mechanical coding	key 2 (400 V AC)	-	-
Wire termination	crimp connection	-	-
Recommended torque, nut	-	0.4 Nm	-
Mating cycles	≥ 100	≥ 100	-
Way of locking	bayonet	screw	-
Weight per piece	0.200 kg (0.441 lb)	-	-
Body color	-	black	-
Body material	-	TPU, UL 94	-
Flange housing material	GD-Zn, Ni	-	-
Coupling nut material	-	CuZn, Ni	-
Seal	NBR	FPM	-
Contact carrier color	-	red	-
Contact carrier material	PA, UL 94	PA, UL 94	-
Contact carrier color (Ethernet)	red	-	-
Contact carrier color (power)	red	-	-
Contact plating	Au over Ni	Ni, Au gal.	-
Contact material	copper alloy	CuZn	-
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	-	-
UV resistance	-	yes	-
RoHS compliant	yes	yes	-

Ambient temperature (operation)	-30...+80°C, -22...+176°F	-30...+70°C, -22...+158°F	-
Protection rating	IP65/67 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)	-
Approvals	UL 2237: File E484763	-	-

Cable

Electrical data	
Rated voltage (Ethernet)	max. 300 V (peak value, not for high voltage purposes)
Rated voltage (power)	600 V
Operating voltage	≤ 125 V (peak value, not for high voltage purposes)
Attenuation of shielding	≥ 65 dB (30...100 MHz)
Insulation resistance	≥ 5GΩ * km
Unbalanced capacitance to ground	≤ 2000 pF/km
Mutual capacitance	48 nF/km
Characteristic impedance (Ethernet)	100 Ω ±15 Ω
Loop resistance	≤ 110.8 Ω/km
Signal running time (Ethernet)	5.3 ns/m
Electrical parameters (Ethernet)	Cat.5e, according to EN 50288-2-2
Test voltage	1000 V, 50 Hz, 1 min. (wire/wire and wire/screen)
Mechanical data	
Cable structure (Ethernet)	star quad
Conductor construction (power)	19 x 0.30 mm
Cross-section (power)	5 x 4.0 mm ² (approx. AWG12)
Cross-section (Ethernet)	1 x 4 x 0.34 mm ² (AWG22)
Outer cable diameter	6.5 mm ± 0.2 mm (0.2559" ± 0.0079")
Min. bending radius, moved	8 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Conductor material (Ethernet)	copper, tinned
Shielding	aluminum-clad foil, braiding of tinned copper wires, coupling
Optical covering factor of shielding (Ethernet)	≥ 85 %
Use	drag-chain suitable
Max. acceleration	3 m/s ²
Max. speed	3 m/s
Max. travel distance	4.5 m

Max. number of cycles	3 million
Jacket color	black (similar to RAL 9005) with red stripe (similar to RAL 3020)
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 Automation GmbH & Co. KG - Germany - EtherCATp Cat5e AWG22/7 E170315 AWM 20549 AWM I/II A/B 80°C 300 V MM/YY RoHS
Printing color	white

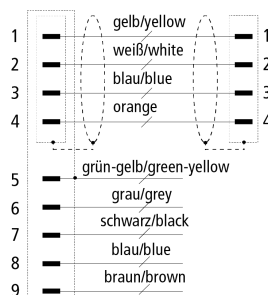
Environmental data

Operation temperature range, moved	-30...+70°C, -22...+158°F
Operation temperature range, fixed installation	-40...+80°C, -40...+176°F
UV resistance	good
Oil resistance	according to IEC 60811-2-1 or according to DIN VDE 0282 part 10
Flame-retardant	Horizontal flame test according to UL 1581 part 1090
Halogen-free	according to IEC 60754 or DIN VDE 0472 part 815

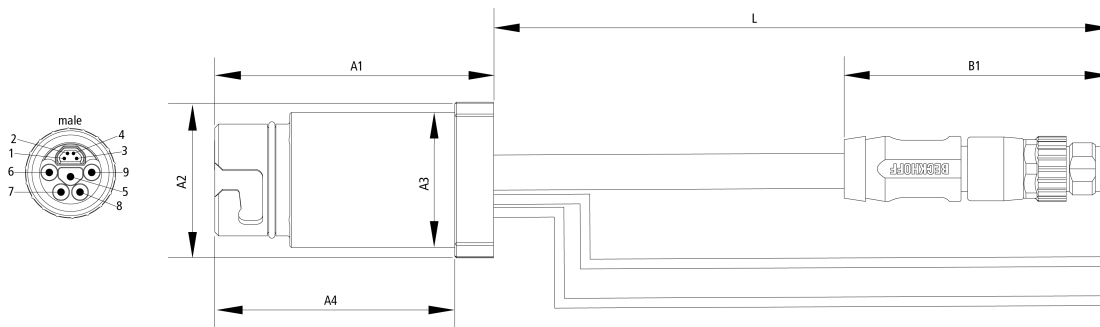
Attenuation

Max. insertion loss								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	-	4.9	7.8	9.9	11.1	14.1	20.4	26.4
[db/100 ft]	-	1.5	2.4	3	3.4	4.3	6.2	8
Min. near-end crosstalk attenuation								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	-	56.3	50.3	47.2	45.8	42.9	38.4	35.3
[db/100 ft]	-	17.2	15.3	14.4	14	13.1	11.7	10.8

Contact assembly



Dimensions



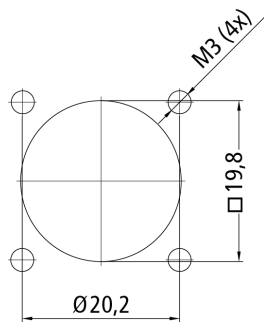
A1	47.50 mm
A2	26.00 mm
A3	26.00 mm
A4	42.70 mm
B1	41.00 mm

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

CE, UL	
CE	yes

Installation dimensions



Ordering information	Length
ZK7714-BX00-0xxx	-

Accessories

ZS7300-B001	B23 protection cap, socket/flange, plastic, IP67, packaging unit = 10 pieces, including loss protection
ZS7300-B002	B23 protection cap, socket/flange, metal, IP67, packaging unit = 5 pieces, including loss protection
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



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.

Beckhoff®, TwinCAT®, TwinCAT/BSD®, TC/BSD®, EtherCAT®, EtherCAT G®, EtherCAT G10®, EtherCAT P®, Safety over EtherCAT®, TwinSAFE®, XFC®, XTS® and XPlanar® are registered trademarks of and licensed by Beckhoff Automation GmbH. Other designations used in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owners.

© Beckhoff Automation GmbH & Co. KG 06/2024

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual application do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.