

ZK7764-1819-Axxx | B23, ENP cable, PUR, 3 G 4.0 mm² + (1 x 4 x AWG22), fixed installation, key 2



B23, plug, straight, male+female, pins 2+PE+4, EtherCAT-coded – B23, plug, straight, female+male, pins 2+PE+4, EtherCAT-coded



Plugs

Electrical data	Head A	Head B
Rated voltage (Ethernet)	60 V DC	60 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
Voltage proof (contact/contact)	1.5 kV (power - Ethernet), 3.31 kV AC (power), 1.0 kV AC (Ethernet)	1.5 kV (power - Ethernet), 3.31 kV AC (power), 1.0 kV AC (Ethernet)
Shielding (Ethernet)	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

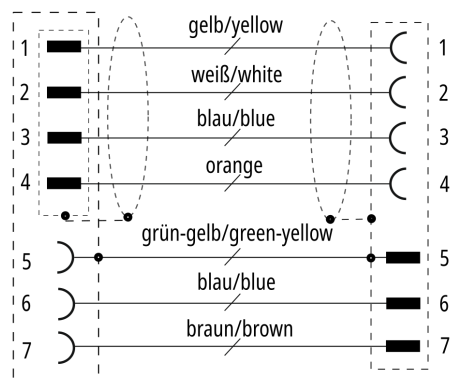
Connector type	plug	plug
Configuration	straight	straight
Contact type	male+female	female+male
Number of positions (face)	pins 2+PE+4	pins 2+PE+4
Coding	EtherCAT-coded	EtherCAT-coded
Wire termination	crimp connection	crimp connection
Mating cycles	≥ 100	≥ 100
Way of locking	bayonet	bayonet
Weight	0.100 kg (0.2205 lb)	0.100 kg (0.2205 lb)
Body color	metal	metal
Body material	CuZn,Ni	CuZn,Ni
Coupling nut material	GD-Zn, Ni	GD-Zn, Ni
Seal	NBR, FPM	NBR, FPM
Contact carrier material	PA 6, UL 94 V0	PA, UL 94 V-0
Contact carrier color (Ethernet)	yellow	yellow
Contact carrier color (power)	red	red
Contact plating	Au over Ni	Au over Ni
Contact material	copper alloy	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	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	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	yes
Ambient temperature (operation)	-30...+80°C, -22...+176°F	-30...+80°C, -22...+176°F
Protection rating	IP67 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	UL 2237: File E484763

Cable

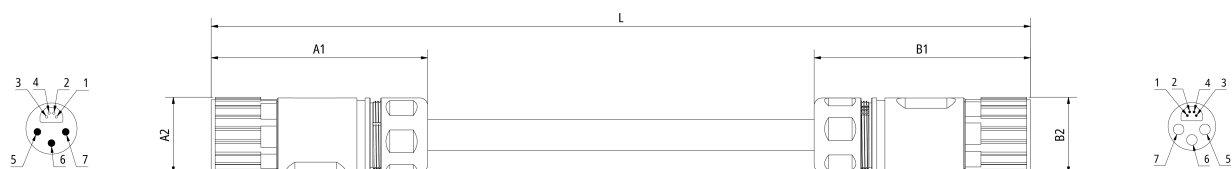
Electrical data		
Operating voltage	≤ 600 V	
Mutual capacitance wire/wire (Ethernet)	50±15 nF/km	
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)	
Wire resistance (power)	≤ 5.1 Ω/km	
Wire resistance (Ethernet)	≤ 58.0 Ω/km (20°C)	

Characteristic impedance (Ethernet)	100 Ω $\pm$ 15 Ω
Test voltage	Power: 6000 V (wire/wire), (wire/screen) Ethernet: 2000 V (wire/wire), (wire/screen)
Mechanical data	
Cable structure (Ethernet)	star quad
Cross-section (power)	3 x 4.0 mm ² (approx. AWG12)
Cross-section (Ethernet)	1 x 4 x 0.34 mm ² (AWG22)
Outer cable diameter	11.9 mm $\pm$ 0.4 mm (0.469" $\pm$ 0.0157")
Min. bending radius, moved	7 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter
Conductor material (power)	copper bare
Conductor material (Ethernet)	bare copper
Shielding	aluminum-clad foil, braiding of tinned copper wires
Optical covering factor of shielding (Ethernet)	$\geq$ 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
Jacket color	black (similar to RAL 9005) with yellow stripe (similar to RAL 1003)
Material jacket	PUR (polyurethane)
Wire color code	white, yellow, blue, orange power: brown, green/yellow, blue
Wire insulation material	PO (Polyolefine)
Printing on the jacket	xxxxM Beckhoff Automation GmbH & Co. KG - Germany -Industrial Ethernet / EtherCAT 3 G 4.0 + (4xAWG22)/C E63216 (cULus) AWM 21223 AWM I/II A/B 80°C 600V FT1 RoHS MM/YY
Printing color	white
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
LABS-free	yes
Halogen-free	yes
Silicone-free	yes
Approvals	cULus AWM Style 21223

Pin assignment



Dimensions



A1	80.00 mm
A2	29.00 mm
B1	80.00 mm
B2	29.00 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
- The design of the pre-assembled cable shown here may differ from the products supplied, despite technically identical specifications.

CE, UL

CE	yes
----	-----

Ordering information	Length
ZK7764-1819-A010	1.00 m
ZK7764-1819-A020	2.00 m
ZK7764-1819-A030	3.00 m
ZK7764-1819-A040	4.00 m
ZK7764-1819-A050	5.00 m
ZK7764-1819-A060	6.00 m
ZK7764-1819-A070	7.00 m
ZK7764-1819-A080	8.00 m
ZK7764-1819-A090	9.00 m
ZK7764-1819-A100	10.00 m
ZK7764-1819-A120	12.00 m
ZK7764-1819-A150	15.00 m
ZK7764-1819-A200	20.00 m
ZK7764-1819-A250	25.00 m



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®, ATRO®, EtherCAT®, EtherCAT G®, EtherCAT G10®, EtherCAT P®, MX-System®, Safety over EtherCAT®, TC/BSD®, TwinCAT®, TwinCAT/BSD®, TwinSAFE®, XFC®, XPlanar® and XTS® 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 07/2026

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.