

ZK7764-1800-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 – open end, 7-wire



Plugs

Electrical data	Head A	Head B
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 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	male+female	-
Number of positions (face)	pins 2+PE+4	7-wire
Coding	EtherCAT-coded	-
Wire termination	crimp connection	-
Mating cycles	≥ 100	-
Way of locking	bayonet	-
Weight	0.100 kg (0.2205 lb)	-
Body color	metal	-
Body material	CuZn,Ni	-
Coupling nut material	GD-Zn, Ni	-
Seal	NBR, FPM	-
Contact carrier material	PA 6, UL 94 V0	-
Contact carrier color (Ethernet)	yellow	-
Contact carrier color (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 rating	IP67 in screwed condition (according to IEC 60529)	-
Pollution level	3/2 (according to IEC 60664-1)	-
Approvals	UL 2237: File E484763	-

Cable

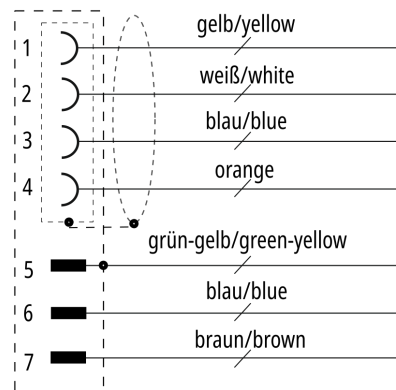
Electrical data		
Operating voltage	≤ 600 V	
Mutual capacitance wire/wire (Ethernet)	50±15 nF/km	
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)	
Wire resistance (power)	≤ 5.1 Ω/km	

Wire resistance (Ethernet)	≤ 58.0 Ω/km (20°C)
Characteristic impedance (Ethernet)	100 Ω ±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 ± 0.4 mm (0.469" ± 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)	≥ 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

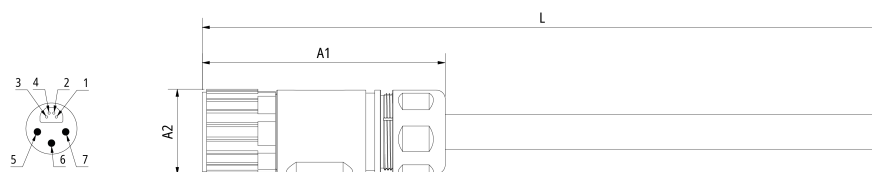
Approvals

cULus AWM Style 21223

Pin assignment



Dimensions



A1	80.00 mm
A2	29.00 mm

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

ZK7764-1800-A030	3.00 m
ZK7764-1800-A050	5.00 m
ZK7764-1800-A100	10.00 m
ZK7764-1800-A150	15.00 m
ZK7764-1800-A200	20.00 m
ZK7764-1800-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.

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