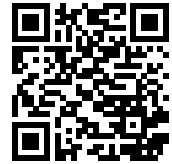
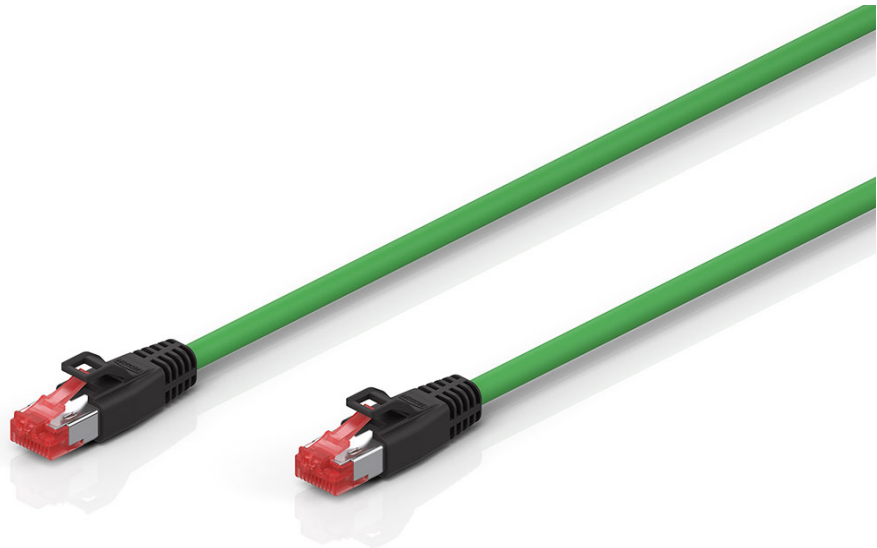


ZK1090-9191-Cxxx | EtherCAT cable, PUR, AWG26, fixed installation, comfortable installation at short distances



RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin



Plugs

Electrical data	Head A	Head B
Rated voltage	125 V	125 V
Rated current	1 A at 40°C	1 A at 40°C
Shielding	yes	yes
Insulation resistance	≥ 100 MΩ (according to IEC 60512)	≥ 100 MΩ (according to IEC 60512)
Mechanical data		
Installation size	RJ45	RJ45
Connector type	plug	plug
Configuration	straight	straight
Contact type	male	male
Number of positions (face)	8-pin	8-pin
Mating cycles	≥ 750	≥ 750
Body color	black	black
Body material	PC UL 94 V0	PC UL 94 V0

Contact carrier material	PC UL 94	PC UL 94
Contact plating	Ni, Au gal.	Ni, Au gal.
Contact material	CuZn	CuZn
Environmental data		
RoHS compliant	yes	yes
Ambient temperature (operation)	-40...+60°C, -40...+140°F	-40...+60°C, -40...+140°F
Protection rating	IP20	IP20
Pollution level	3/2 (according to IEC 60664-1)	3/2 (according to IEC 60664-1)
Approvals	UL	UL

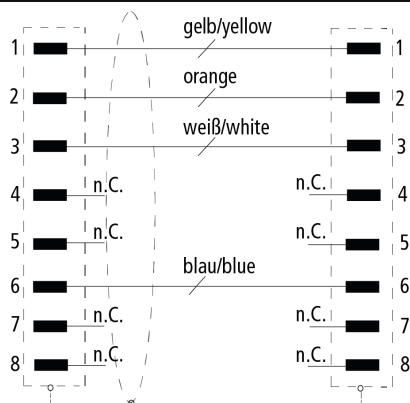
Cable

Electrical data		
Rated voltage	30 V (according to IEC 61076-2-101)	
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	1000 V, 50 Hz, 1 min.	
Mechanical data		
Cable structure (Ethernet)	star quad	
Conductor construction (Ethernet)	7-strand	
Cross-section (Ethernet)	1 x 4 x 0.14 mm ² (AWG26)	
Outer cable diameter	3.65 mm ± 0.15 mm (0.1496" ± 0.0059")	
Min. bending radius, moved	15 x outer cable diameter	
Min. bending radius, fixed installation	8 x outer cable diameter, 2.5 x outer cable diameter (fixed with single bend)	
Weight	30.0 kg/km (20.2 lb/1000 ft)	
Conductor material	copper bare	
Shielding	braiding of tinned copper wires	

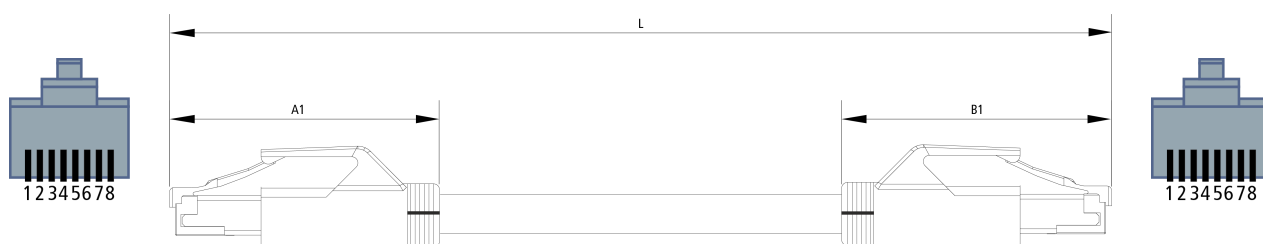
Optical covering factor of shielding (Ethernet)	≥ 85 %
Use	fixed installation
Jacket color	green
Material jacket	PUR (polyurethane)
Wire color code	yellow, orange, white, blue
Wire insulation material	PO (Polyolefine)
Printing on the jacket	00000m Beckhoff Automation GmbH & Co. KG - Germany – Industrial Ethernet / EtherCAT ZB9034 Cat5e AWG26/7 E170315 AWM 20963 AWM I A/B 80°C 30V Fa.No.xxxxx
Printing color	black
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 DIN EN 60811-404 (7x24 h/90 °C)
Acid, lye and solvent resistance	depends on medium, concentration, temperature and duration
Flame-retardant	Horizontal flame test according to UL 1581 part 1090
CFC-free	yes
Halogen-free	according to IEC 60754 or DIN VDE 0472 part 815
Silicone-free	yes
UL	yes, UL E-file number: E170315

Attenuation	
Max. insertion loss	
Frequency [MHz]	1 4 10 16 20 31.25 62.5 100
[db/100 m]	3.2 6.2 10.5 13.4 14.7 18.8 27.2 35.0
[db/100 ft]	1 1.9 3.2 4.1 4.5 5.7 8.3 10.7
Min. near-end crosstalk attenuation	
Frequency [MHz]	1 4 10 16 20 31.25 62.5 100
[db/100 m]	65 56.3 50.3 47.2 45.8 42.9 38.4 35.3
[db/100 ft]	19.8 17.2 15.3 14.4 14 13.1 11.7 10.8

Contact assembly



Dimensions



A1 44.0 mm

B1 44.0 mm

Notes

- Depending on the cable length (L), the following length tolerances apply:
0 m...<0.2 m: ± 10 mm | 0.2...4.0 m: + 40 mm | ≥ 4.0 m: + 1%
- Illustrations similar
- Further cable length on request.

CE, UL

CE yes

UL yes, UL E-file number: E499669

Ordering information

Ordering information	Length
ZK1090-9191-C001	0.15 m
ZK1090-9191-C002	0.20 m
ZK1090-9191-C003	0.30 m
ZK1090-9191-C004	0.40 m
ZK1090-9191-C005	0.50 m
ZK1090-9191-C006	0.60 m
ZK1090-9191-C007	0.70 m

ZK1090-9191-C008	0.80 m
ZK1090-9191-C009	0.90 m
ZK1090-9191-C010	1.00 m
ZK1090-9191-C011	1.10 m
ZK1090-9191-C012	1.20 m
ZK1090-9191-C013	1.30 m
ZK1090-9191-C014	1.40 m
ZK1090-9191-C015	1.50 m
ZK1090-9191-C016	1.60 m
ZK1090-9191-C017	1.70 m
ZK1090-9191-C018	1.80 m
ZK1090-9191-C019	1.90 m
ZK1090-9191-C020	2.00 m
ZK1090-9191-C030	3.00 m
ZK1090-9191-C050	5.00 m

Accessories

ZK1096-9696-0000	RJ45, socket, straight, female, 8-pin – RJ45, socket, straight, female, 8-pin
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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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