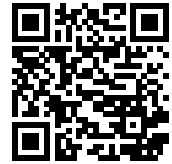
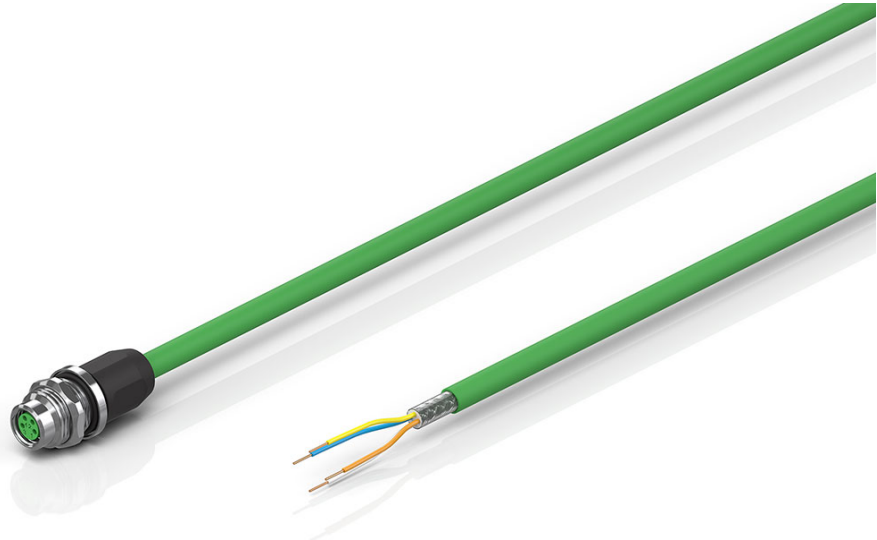


ZK1090-3800-0xxx | EtherCAT cable, PUR, AWG26, drag-chain suitable



M8, flange, straight, female, 4-pin, A-coded – open end, 4-wire + shielding



Plugs

Electrical data	Head A	Head B
Rated voltage	30 V (according to IEC 61076-2-104)	-
Rated current	4 A at 40°C (according to IEC 61076-2-104)	-
Shielding	yes	-
Insulation resistance	≥ 100 GΩ (according to IEC 60512)	-
Mechanical data		
Installation size	M8	open end
Connector type	flange	-
Configuration	straight	-
Contact type	female	-
Number of positions (face)	4-pin	4-wire + shielding
Coding	A-coded	-
Recommended torque, nut	0.4 Nm	-
Mating cycles	≥ 100	-
Way of locking	screw	-

Body color	black	-
Body material	TPU, UL94	-
Coupling nut material	GD-Zn, Ni	-
Seal	FPM	-
Contact carrier color	green	-
Contact carrier material	PA, UL 94	-
Contact plating	Ni, Au gal.	-
Contact material	CuZn	-
Environmental data		
RoHS compliant	yes	-
Ambient temperature (operation)	-30...+70°C, -22...+158°F	-
Protection rating	IP65/67 in screwed condition (according to IEC 60529)	-
Pollution level	3/2 (according to IEC 60664-1)	-

Cable

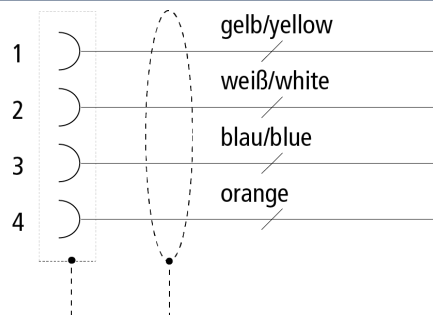
Electrical data		
Rated voltage	30 V (according to IEC 61076-2-101)	
Attenuation of shielding	≥ 43 dB	
Insulation resistance	≥ 150 MΩ/km	
Unbalanced capacitance to ground	3400 pF/km	
Mutual capacitance	51 pF/m at 1 kHz	
Characteristic impedance (Ethernet)	100 Ω ±15 Ω (100 MHz)	
Loop resistance (Ethernet)	250 Ω/km	
Unbalanced resistance (Ethernet)	2 %	
Dielectric strength wire/wire (Ethernet)	1000 V DC/700 V AC	
Dielectric strength wire/shield (Ethernet)	1000 V DC/700 V AC	
Signal running time (Ethernet)	5.55 ns/m	
Electrical parameters (Ethernet)	based on Cat.5	
Test voltage	700 V	
Mechanical data		
Cable structure (Ethernet)	star quad	
Conductor construction (Ethernet)	19 x 0.1 mm	
Cross-section (Ethernet)	1 x 4 x 0.14 mm ² (AWG26)	
Outer cable diameter	5.4 mm ± 0.3 mm (0.213" ±0.0118")	
Min. bending radius, moved	20 x outer cable diameter	

Min. bending radius, fixed installation	4 x outer cable diameter
Weight	40 kg/km (26.9 lb/1000 ft)
Conductor material (Ethernet)	copper, tinned
Shielding	braiding of tinned copper wires
Optical covering factor of shielding (Ethernet)	90 %
Use	drag-chain suitable
Max. acceleration	10 m/s ²
Max. speed	15 m/s
Max. number of cycles	20 million (5 million with 14 x D, v = 5 m/s and a = 15 m/s ² , min. 1 million with 9.5 x D, a = 1 m/s ² , travel distance = 1 m)
Wall thickness of wire insulation (Ethernet)	0.25 mm
Jacket color	green
Material jacket	PUR (polyurethane)
Wire color code	yellow, orange, white, blue
Wire insulation material	PP (polypropylene)
Printing on the jacket	"sequential length in meters" Industrial Ethernet Cat5 trailing * E130266 "UL Recognized" UL AWM 20963 80 °C 30V * ZB9032 "month/year" " internal order number"
Printing color	black
Environmental data	
Operation temperature range, moved	-40...+80°C, -40...+176°F
Oil resistance	according to DIN EN 60811-404 (7x24 h/90 °C)
Acid, lye and solvent resistance	depends on medium, concentration, temperature and duration
CFC-free	yes
Halogen-free	yes
Silicone-free	yes
RoHS compliant	yes
CE	yes
UL	yes, UL E-file number: E130266
Approvals	UL-Style AWM 20963

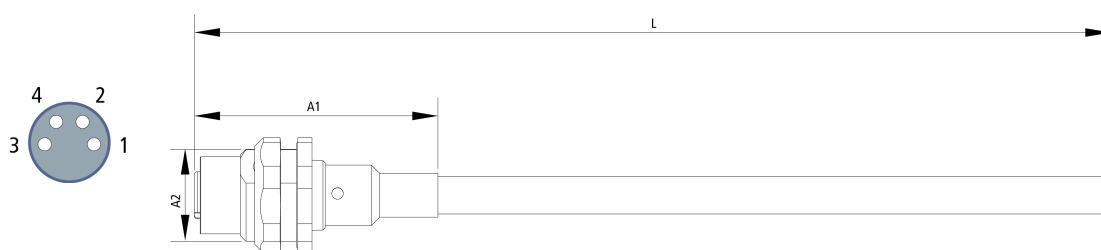
Attenuation								
Max. insertion loss								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	3.1	6.5	9.9	12.3	13.8	17.7	25.6	33.0
[db/100 ft]	0.9	2	3	3.7	4.2	5.4	7.8	10.1
Min. near-end crosstalk attenuation								

Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	62	53.0	47.0	44.0	42.0	40.0	35.0	32.0
[db/100 ft]	18.9	16.2	14.3	13.4	12.8	12.2	10.7	9.8

Contact assembly



Dimensions



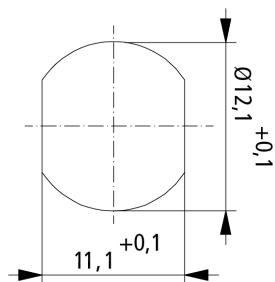
A1 34.50 mm

A2 M12

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.

Installation dimensions



Ordering information

Length

ZK1090-3800-0003	0.30 m
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ZK1090-3800-0050	5.00 m
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Accessories

ZB8801-0000	torque wrench for hexagonal plugs, adjustable
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ZB8801-0001	torque cable key, M8/wrench size 9, for ZB8801-0000
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