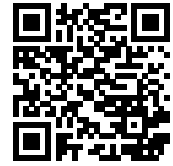
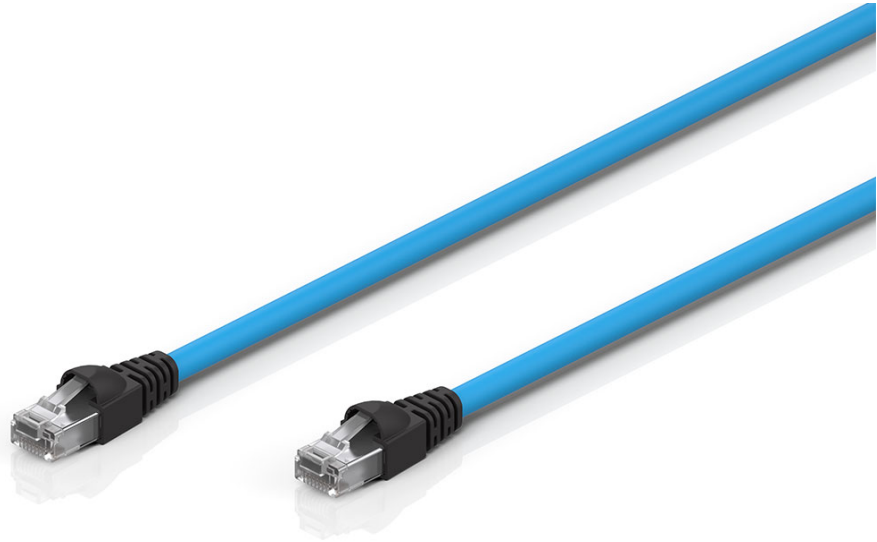


# ZK1098-9191-0xxx | Industrial-Ethernet/EtherCAT G patch cable, Cat.6A, PUR, 4 x 2 x AWG26, fixed installation



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



## Plugs

Electrical data	Head A	Head B
Rated voltage	160 V	160 V
Rated current	1 A at 50°C	1 A at 50°C
Shielding	yes	yes
Insulation resistance	≥ 500 MΩ	≥ 500 MΩ
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	PUR UL94 HB	PUR UL94 HB

Contact carrier color	transparent	transparent
Contact carrier material	PC UL 94 V-0	PC UL 94 V-0
Contact plating	Au over Ni	Au over Ni
Contact material	phosphorus bronze	phosphorus bronze
<b>Environmental data</b>		
Special features	10 GBit Ethernet acc. to IEEE802-3an Category 6A/Klasse EA acc. to EN 50173-1 Category 6A acc. to ANSI/TIA/EIA-568-C.2	10 GBit Ethernet acc. to IEEE802-3an Category 6A/Klasse EA acc. to EN 50173-1 Category 6A acc. to ANSI/TIA/EIA-568-C.2
Shock resistance	250 m/s <sup>2</sup>	250 m/s <sup>2</sup>
Vibration resistance	50 m/s <sup>2</sup>	50 m/s <sup>2</sup>
RoHS compliant	yes	yes
Ambient temperature (operation)	-40...+70°C, -40...+158°F	-40...+70°C, -40...+158°F
Protection rating	IP20	IP20
Approvals	UL	UL

## Cable

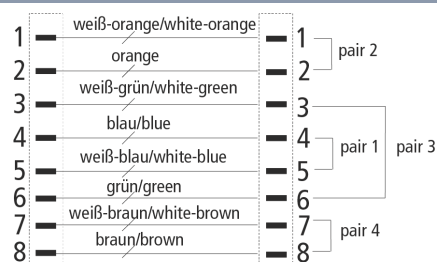
<b>Electrical data</b>	
Rated voltage	125 V
Insulation resistance	≥ 150 MΩ * km
Unbalanced capacitance to ground	1600 pF/km
Mutual capacitance	46 pF/m at 1 kHz
Characteristic impedance	100 Ω ± 15 Ω (100 MHz)
Loop resistance	≤ 290 Ω/km
Unbalanced resistance	< 2 %
Unbalanced resistance (Ethernet)	≤ 2 % in the pair, ≤ 4 % between the pairs
Dielectric strength wire/wire	750 V
Dielectric strength wire/shield	750 V
Signal running time	nom. 427 ns / 100 m
Signal running time (Ethernet)	4.27 ns/m
Electrical parameters (Ethernet)	Cat.7 acc. to EN50288-4-2
Test voltage	750 V, 50 Hz, 1 min.
<b>Mechanical data</b>	
Cable structure	S/FTP
Cable structure (Ethernet)	twisted shielded pair
Conductor construction (Ethernet)	7-strand
Cross-section (Ethernet)	4 x 2 x 0.14 mm <sup>2</sup> (AWG26)
Outer cable diameter	6.2 mm ± 0.2mm (0.244" ± 0.0079")

Min. bending radius, moved	8 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter
Weight	41 kg/km (27.55 lb/1000 ft)
Conductor material (Ethernet)	bare copper
Shielding	braiding of tinned copper wires, metallized plastic fleece for pair shielding
Optical covering factor of shielding (total)	≥ 60 %
Use	fixed installation
Jacket color	blue
Material jacket	PUR (polyurethane)
Wire color code	white/orange, orange, white/green, green, blue, white/blue, white/brown, brown
Wire insulation material	PE (polyethylene)
Printing on the jacket	Cat.7 S/FTP 4x2xAWG26/7 PUR LI02YSC11Y PIMF IEC 60332-1 E344985 AA c(UL)us CMX -40°C - +85°C "length in meters"
Printing color	blue

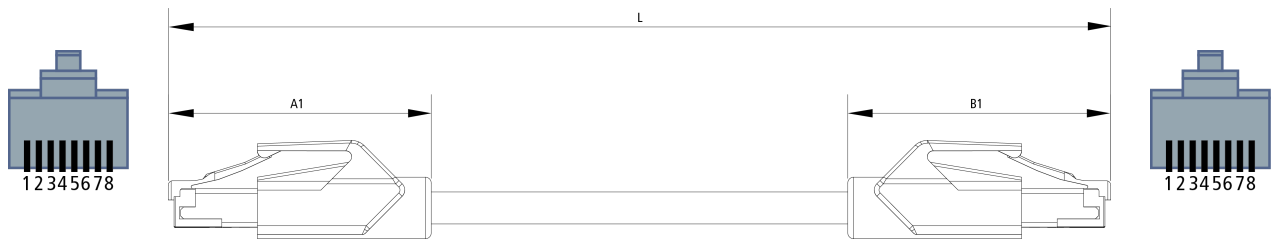
### Environmental data

Operation temperature range, moved	-40...+85°C, -40...+185°F
Ambient temperature, transport/storage	-10...+60°C, -14...+140°F
UV resistance	according to IEC 60068-2-5 (2 cycles of test method B)
Oil resistance	according to UL 758
Acid, lye and solvent resistance	depends on medium, concentration, temperature and duration
Special features	Series of ISO/IEC 11801-x; Class F, Series of EN 50173-x; Class F, IEEE802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T, IEEE 802.3: Power over Ethernet PoE; PoE+
LABS-free	yes
Flame-retardant	according to IEC 60332-1
Halogen-free	according to IEC 60754-2
Silicone-free	yes
Approvals	E499669

### Contact assembly



### Dimensions



A1	42.00 mm
B1	42.00 mm

## Notes

- Depending on the cable length (L), the following length tolerances apply:  
 $\dots 500 \pm 10 \mid \geq 500 \pm 20 \mid \geq 1500 \pm 25 \mid \geq 2500 \pm 40 \mid \geq 5000 \pm 60 \mid \geq 8000 \pm 100 \mid \geq 15000 \pm 200 \mid \geq 20000 \pm 300 \mid \geq 50000 \pm 500 \mid \geq 100000 \pm 500$
- 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
----	-----

### Ordering information

Ordering information	Length
ZK1098-9191-0003	0.30 m
ZK1098-9191-0005	0.50 m
ZK1098-9191-0010	1.00 m
ZK1098-9191-0020	2.00 m
ZK1098-9191-0030	3.00 m
ZK1098-9191-0080	8.00 m
ZK1098-9191-0100	10.00 m

### Accessories

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



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 08/2024

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.