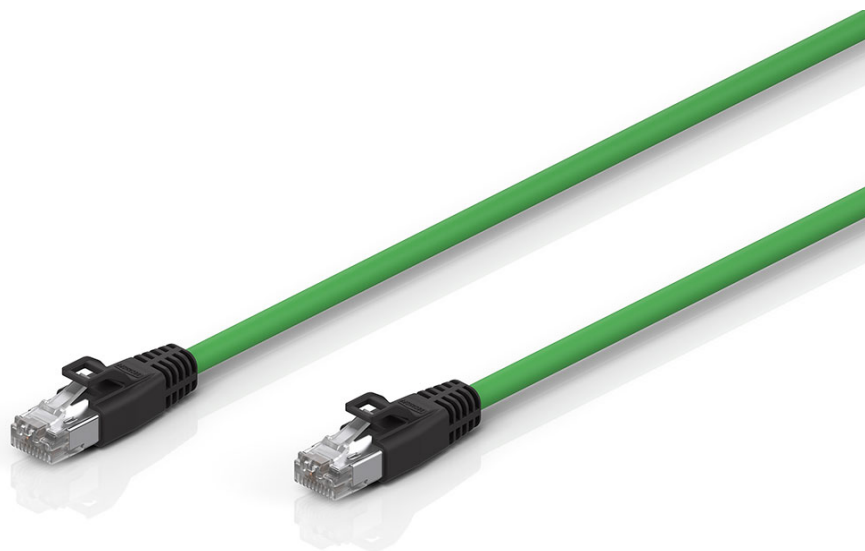


# ZK1096-9191-6xxx | Industrial Ethernet/EtherCAT G/G10 patch cable, Cat.6A, PUR, 4 x 2 x AWG26, drag-chain suitable



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	≥ 10 GΩ (according to IEC 60512-2)	≥ 10 GΩ (according to IEC 60512-2)
Mechanical data		
Accessories type	Connectors/Cables	Connectors/Cables
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	green	green

Body material	PUR	PUR
Contact plating	Ni, Au gal.	Ni, Au gal.
Contact material	CuZn	CuZn
<b>Environmental data</b>		
Special features	UL94 V0	UL94 V0
UV resistance	according to IEC 60068-2-5	according to IEC 60068-2-5
RoHS compliant	yes	yes
Oil resistance	according to IEC 60811-2-1 or according to DIN VDE 0282 part 10	according to IEC 60811-2-1 or according to DIN VDE 0282 part 10
Ambient temperature (operation)	-40...+85°C, -40...+185°F	-40...+85°C, -40...+185°F
Protection rating	IP20	IP20

## Cable

<b>Electrical data</b>	
Rated voltage	125 V
Operating voltage	≤ 125 V (peak value, not for high voltage purposes)
Attenuation of shielding	≥ 60 dB (30...250 MHz)
Insulation resistance	≥ 5GΩ * km
Mutual capacitance	nom. 50 nF/km
Characteristic impedance	100 Ω ± 15 Ω (100 MHz)
Loop resistance	≤ 280 Ω/km
Electrical parameters (Ethernet)	Cat.6
Test voltage	700 V, 50 Hz, 1 min. (wire/wire and wire/screen)
<b>Mechanical data</b>	
Cable structure	SF/UTP
Cable structure (Ethernet)	twisted shielded pair
Conductor construction (Ethernet)	19-strand
Cross-section (Ethernet)	4 x 2 x 0.14 mm <sup>2</sup> (AWG26)
Outer cable diameter	7.80 ± 0.20 mm
Min. bending radius, moved	7.5 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter
Weight	64 kg/km (43.0 lb/1000 ft)
Conductor material (Ethernet)	tinned copper
Shielding	aluminum-clad foil, braiding of tinned copper wires
Optical covering factor of shielding (total)	≥ 85 %
Use	drag-chain suitable

Max. acceleration	4 m/s <sup>2</sup>
Max. speed	4 m/s
Max. travel distance	4.5 m (horizontal)
Max. number of cycles	1 million
Jacket color	green
Material jacket	PUR (polyurethane)
Wire color code	white-blue / blue, white-orange / orange, white-green / green, white-brown / brown
Wire insulation material	PO (Polyolefine)
Printing on the jacket	

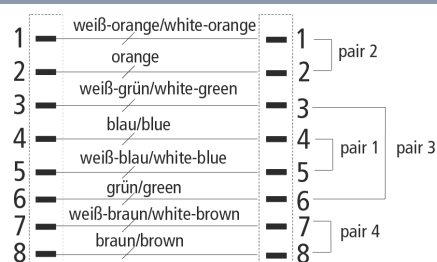
### Environmental data

Operation temperature range, moved	-30...+70°C, -22...+158°F for flexible use. In drag-chain: -5...+50°C, 23...+122°F
Operation temperature range, fixed installation	-40...+80°C, -40...+185°F
Oil resistance	according to IEC 60811-2-1 or according to DIN VDE 0282 part 10
Acid, lye and solvent resistance	depends on medium, concentration, temperature and duration
Flame-retardant	VW1 Flame Test, IEC 60332-1-2
Halogen-free	according to IEC 60754 or DIN VDE 0472 part 815
UL	yes, UL E-file number: E312184
Approvals	c(UL)us CMX 75°C, C(UL)us AWM 21576 80°C 1000V

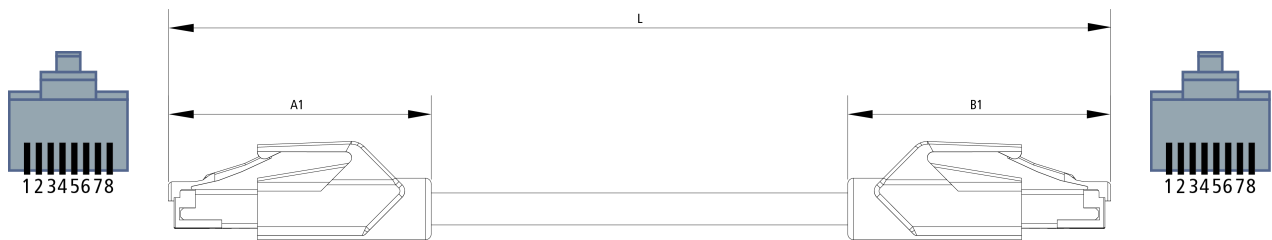
### Attenuation

Max. insertion loss								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	-	5.8	9.0	11.4	12.8	16.1	23.3	29.9
[db/100 ft]	-	1.8	2.7	3.5	3.9	4.9	7.1	9.1
Min. near-end crosstalk attenuation								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	-	66.3	60.3	57.2	55.8	52.9	48.4	45.3
[db/100 ft]	-	20.2	18.4	17.4	17	16.1	14.8	13.8

### Contact assembly



## Dimensions



A1	37.00 mm
B1	37.00 mm

## Notes

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

## CE, UL

CE	yes
----	-----

## Ordering information

Ordering information	Length
ZK1096-9191-6100	10.00 m
ZK1096-9191-6120	12.00 m
ZK1096-9191-6150	15.00 m
ZK1096-9191-6180	18.00 m
ZK1096-9191-6200	20.00 m
ZK1096-9191-6250	25.00 m
ZK1096-9191-6300	30.00 m

Further length on request

## 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 02/2025

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.