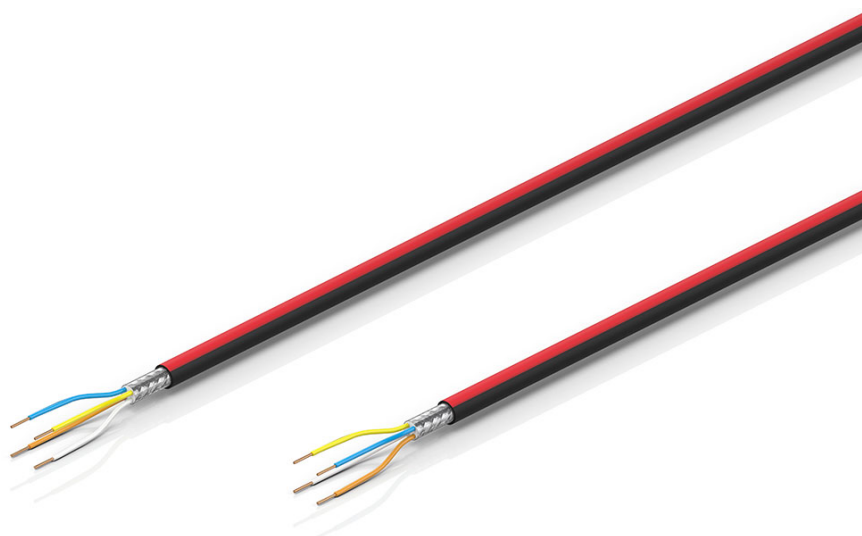


ZB7003 | EtherCAT P cable, shielded, PUR, fixed installation, 1 x 4 x AWG22/7, black with red stripe, OD = 5.1 mm (± 0.15 mm)



Electrical data

Rated voltage	max. 300 V (not for high voltage purposes)
Attenuation of shielding	≥ 65 dB (30...100 MHz)
Insulation resistance	≥ 500 M Ω * km (DIN EN 50395)
Unbalanced capacitance to ground	≤ 2000 pF/km
Mutual capacitance	45 \pm 15 pF/m at 800 Hz according to EN 50289-1-5
Characteristic impedance (Ethernet)	100 Ω \pm 5 Ω (100 MHz) (EN 50289-1-11)
Loop resistance	≤ 110 Ω /km
Dielectric strength wire/wire (Ethernet)	1 kV (50 Hz, 1 min.)
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. (wire/wire and wire/screen)

Mechanical data

Cable structure (Ethernet)	star quad
Conductor construction (Ethernet)	7-strand
Cross-section (Ethernet)	1 x 4 x 0.34 mm ² (AWG22)
Outer cable diameter	5.1 mm \pm 0.15 mm (0.200787" \pm 0.0059")

Min. bending radius, moved	8 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Weight	50 kg/km (33.6 lb/1000 ft)
Conductor material (Ethernet)	copper, tinned
Shielding	aluminum-clad foil, braiding of tinned copper wires, coupling
Optical covering factor of shielding (Ethernet)	≥ 85 %
Use	fixed installation
Jacket color	black (similar to RAL 9005) with red stripe (similar to RAL 3020)
Material jacket	PUR (polyurethane)
Wire color code	yellow, orange, white, blue
Wire insulation material	PO (Polyolefine)
Printing on the jacket	Beckhoff Automation GmbH & Co. KG - Germany - EtherCATp Cat5e AWG22/7 E170315 AWM 20549 AWM I/II A/B 80°C 300 V MM/YY RoHS
Printing color	white
Max. tensile load, dynamic	20 N/mm ²
Max. tensile load, static	50 N/mm ²
Environmental data	
Operation temperature range, moved	-30...+80°C, -22...+176°F
Operation temperature range, fixed installation	-40...+80°C, -40...+176°F
UV resistance	yes
Oil resistance	according to DIN EN 60811-404
Flame-retardant	FT-2
CFC-free	yes
Halogen-free	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]	3.3	5.3	7.5	9.1	10.1	12.4	17.6	22.5	
[db/100 ft]	1	1.6	2.3	2.8	3.1	3.8	5.4	6.9	
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	

Notes

- The following length tolerances apply: 2-3%
- Illustrations similar

Ordering information	Length
ZB7003	sold by the meter



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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