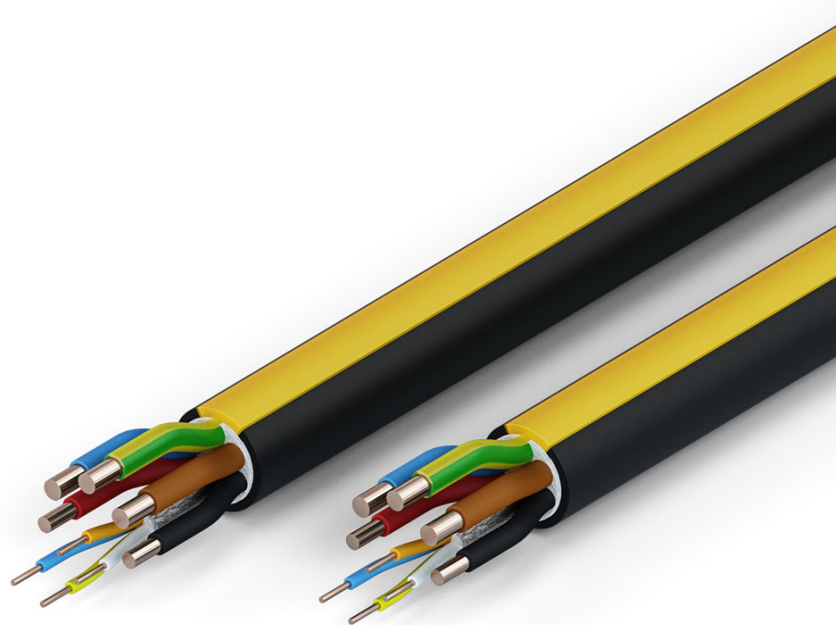
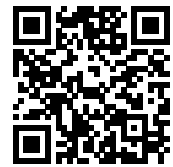


ZB7300-xxxx | EtherCAT cable, no overall shield, PUR, drag-chain suitable, 3G4 mm² + 2 x 2.5 mm² + (1 x 4 x AWG22), black with yellow stripe, OD = 13.1 (±0.2mm)



Electrical data	
Operating voltage	≤ 1000 V AC
Mutual capacitance wire/wire (Ethernet)	50 ±15 pF/m at 800 Hz (EN 50289-1-5)
Attenuation of shielding	≥ 65 dB (30...100 MHz)
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)
Mutual capacitance	AWG 22: 50 ± 15 pF/m at 800 Hz according to EN 50289-1-5
Wire resistance (power)	≤ 4.95 Ω/km (DIN EN 50395)
Wire resistance (signal/24V)	≤ 7.98 Ω/km according to DIN EN 50395
Wire resistance (Ethernet)	≤ 58.0 Ω/km according to DIN EN 50395
Characteristic impedance (Ethernet)	100 Ω ±5 Ω (100 MHz) (EN 50289-1-11)
Dielectric strength wire/wire (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Dielectric strength wire/shield (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Dielectric strength wire/wire (Ethernet)	2 kV (50 Hz, 1 min)
Dielectric strength wire/shield (Ethernet)	2 kV (50 Hz, 1 min)
Mechanical data	
Cable structure (Ethernet)	star quad

Conductor construction (Ethernet)	7-strand
Cross-section (power)	3 x 4.0 mm ² (approx. AWG12)
Cross-section (signal)	2 x 2.5 mm ² (approx. AWG14)
Cross-section (Ethernet)	1 x 4 x 0.34 mm ² (AWG22)
Outer cable diameter	13.1 mm ± 0.2 mm (0.5157" ± 0.0079")
Min. bending radius, moved	7 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter
Weight	300 kg/km (201.59 lb/1000 ft)
Conductor material (power)	copper bare, Class 6 according to DIN EN 60228
Conductor material (signal/24V)	copper bare, Class 6 according to DIN EN 60228
Conductor material (Ethernet)	copper, tinned
Shielding	braiding of tinned copper wires, metallized plastic fleece, aluminum-clad foil
Optical covering factor of shielding (Ethernet)	≥ 85 %
Optical covering factor of shielding (total)	no
Use	drag-chain suitable
UL-Style	UL758 (AWM) Style 21223 (jacket) and Style 10492 (core)
Max. acceleration	30 m/s ² by 5 m travel distance 15 m/s ² by 10 m travel distance 5 m/s ² by 20 m travel distance
Max. speed	4 m/s
Max. travel distance	20 m (horizontal) 5 m (vertical)
Max. number of cycles	3 million
Wall thickness of wire insulation (power)	0.4 mm
Wall thickness of wire insulation (Ethernet)	0.4 mm
Jacket color	black (similar to RAL 9005) with yellow stripe (similar to RAL 1003)
Material jacket	PUR (polyurethane)
Wire color code	Ethernet: white, yellow, blue, orange Power (4.0 mm ²): brown, blue, yellow/green Signal (1.5 mm ²): red, black
Wire insulation material	PP (polypropylene)
Printing on the jacket	XXXX Beckhoff Automation GmbH & Co. KG-Germany- 3G4+2x2,5 + (4xAWG22)/C E170315 AWM 20233 AWM I/II A/B 80°C 300V FT1 RoHS MM/JJ CE
Printing color	white
Torsion angle in °/m	max. ± 30 °/m
Environmental data	
Operation temperature range, moved	-30...+80°C, -22...+176°F, in drag-chain applications: -20...+60°C, -4...+140°F

Operation temperature range, fixed installation	-40...+80°C, -40...+176°F
UV resistance	yes
Oil resistance	according to DIN EN 60811-404
LABS-free	yes
Flame-retardant	yes
CFC-free	yes
Halogen-free	yes
Silicone-free	yes
Approvals	cRUus

Attenuation								
Max. insertion loss								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	≤ 2.3	≤ 4.2	≤ 6.8	≤ 8.6	≤ 9.7	≤ 12.3	≤ 18.0	≤ 23.6
[db/100 ft]	≤ 0.7	≤ 1.3	≤ 2.1	≤ 2.6	≤ 3	≤ 3.7	≤ 5.5	≤ 7.2
Min. near-end crosstalk attenuation								
Frequency [MHz]	1	4	10	16	20	31.25	62.5	100
[db/100 m]	≥ 80	≥ 76.0	≥ 70.0	≥ 65.0	≥ 63.0	≥ 60.0	≥ 55.0	≥ 50.0
[db/100 ft]	≥ 24.4	≥ 23.2	≥ 21.3	≥ 19.8	≥ 19.2	≥ 18.3	≥ 16.8	≥ 15.2

Notes

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

Ordering information	Length
ZB7300-0050	5.00 m
ZB7300-0100	10.00 m
ZB7300-0250	25.00 m
ZB7300-0500	50.00 m
ZB7300-1000	100 m
ZB7300-R001	100 m
ZB7300-R002	250 m
ZB7300-R003	500 m
ZB7300-R004	1000 m



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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