ZB7307-xxxx | EtherCAT P cable, with total screen, PUR, drag chain suitable, (3G2.5 mm² + 2 x 2.5 mm² + (1 x 4 x AWG22)), black with red stripe, OD = 12.5 (±0.4 mm)

Electrical data	
Operating voltage	≤ 1000 V AC
Mutual capacitance wire/wire (Ethernet)	nom. 55 nF/km
Attenuation of shielding	≥ 40 dB (30...100 MHz)
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)
Mutual capacitance	AWG 22: nom. 55 nF/km
Wire resistance (power)	2.5 mm²: ≤ 8.3 Ω/km, 1.5 mm²: ≤ 14.0 Ω/km
Wire resistance (Ethernet)	≤ 58.0 Ω/km according to DIN EN 50395
Characteristic impedance (Ethernet)	100 Ω ±5 Ω (100 MHz)
Dielectric strength wire/wire (power)	4 kV 50 Hz 1 min.
Dielectric strength wire/shield (power)	4 kV 50 Hz 1 min.
Dielectric strength wire/wire (Ethernet)	4 kV 50 Hz 1 min.
Dielectric strength wire/shield (Ethernet)	4 kV 50 Hz 1 min.
Test voltage	4000 V, 50 Hz, 1 min. (wire/wire and wire/screen)
Mechanical data	
Cable structure (Ethernet)	star quad

Conductor construction (Ethernet)	7-strand
Cross-section (power)	3 x 2.5 mm² (approx. AWG14) + 2 x 1.5 mm² (approx. AWG16)
Cross-section (Ethernet)	1 x 4 x 0.34 mm² (AWG 22)
Min. bending radius, moved	7 x outer cable diameter
Min. bending radius, fixed installation	4 x outer cable diameter
Weight	250 kg/km (167.5 lb/1000 ft)
Outer cable diameter	12.5 mm ± 0.3 mm (0.492" ± 0.0118")
Conductor material (power)	copper bare
Conductor material (Ethernet)	bare copper
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)	≥ 85 %
Use	drag-chain suitable
Max. acceleration	30 m/s²
Max. speed	4 m/s
Max. travel distance	20 m
Max. number of cycles	5 million
Wall thickness of wire insulation (power)	0.45 mm
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 (Ethernet), black, red (1.5 mm²), green/yellow, brown, blue (2.5 mm²)
Wire insulation material	PO (Polyolefine)
Printing on the jacket	xxxx m Beckhoff Automation GmbH & Co. KG - Germany - EtherCAT P ZB7307 3 G 2,5 + 2 x 1,5 + (4xAWG22)/C E63216 c us AWM 21223 AWM I/II A/B 80°C 600V FT1 RoHS MM/JJ (MM/JJ= month of production/year of production) outher diameter: (12.5 ± 0.4) mm
Printing color	white
Torsion angle in °/m	max. ± 30 °/m
Environmental data	
Operation temperature range, moved	-20...+60 °C, -4...+140 °F
Operation temperature range, fixed installation	-40...+90 °C, -40...+194 °F
UV resistance	yes
Oil resistance	yes
Acid, lye and solvent resistance	depends on medium, concentration, temperature and duration
Special features	with total screen
LABS-free	yes

Flame-retardant	according to UL 758 (cUL-FT1)
Halogen-free	yes
Silicone-free	yes
Approvals	cULus AWM Style 21223 80°C 600V

Attenuation								
Max. insertion loss								
Frequency [MHz]	**1**	**4**	**10**	**16**	**20**	**31.25**	**62.5**	**100**
[db/100 m]	-	4.2	6.8	8.6	9.7	12.3	18.0	23.6
[db/100 ft]	-	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]	65.3	56.3	50.3	47.2	45.8	42.9	38.4	35.3
[db/100 ft]	19.9	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
ZB7307-xxxx	sold by the meter