



## ZB9010 | Industrial Ethernet/EtherCAT cable, shielded, PVC, 1 x 4 x AWG22, fixed installation, CAT5, green

Electrical data	
Rated voltage	600 V
Operating voltage	≤ 125 V (peak value, not for high voltage purposes)
Insulation resistance	≥ 5 GΩ/km
Mutual capacitance	48 nF/km
Characteristic impedance (Ethernet)	100 Ω ±15 Ω (100 MHz)
Loop resistance (Ethernet)	≤ 115 Ω/km
Signal running time (Ethernet)	5.3 ns/m
Electrical parameters (Ethernet)	based on CAT 5
Test voltage	≥ 2000 V
Mechanical data	
Cable structure (Ethernet)	star quad
Conductor construction (Ethernet)	solid
Cross section (Ethernet)	1 x 4 x 0.34 mm <sup>2</sup> (AWG 22)
Min. bending radius, moved	7.5 x outer cable diameter
Min. bending radius, fixed installation	3 x outer cable diameter
Weight	67 kg/km (45.0 lb/1000 ft)
Outer cable diameter	6.5 mm ± 0.2 mm (0.2559" ± 0.0079")
Shielding	braiding of tinned copper wires
Optical covering factor of shielding (Ethernet)	90 %
Use	fixed installation
Jacket colour	green
Material jacket	PVC (polyvinyl chloride)
Wire colour code	yellow, orange, white, blue
Printing on the jacket	BECKHOFF ZB9010 Industrial Ethernet / EtherCAT Standard Cable * CAT5 PLUS * 2x2x22AWG (SHIELDED) (UL) E119100 CMG FT4 75°C VERIFIED (UL) CAT 5E or PLTC SUN RES or AWM 21694 600V * "sequential length in metres"
Printing colour	black
Environmental data	
Operation temperature range, moved	-40...+75 °C, -40...+167 °F

<b>Operation temperature range, fixed installation</b>	-20...+60 °C, -4...+140 °F
<b>Ambient temperature, transport/storage</b>	-40...+75 °C, -40...+167 °F
<b>Flame-retardant</b>	according to IEC 60332-1-2, according to UL 1685 (CSA FT 4)
<b>Approvals</b>	UL File E119100, Vol. 1, Sec. 12, Page 1; UL File E119100, Vol. 3, Sec. 1, Page 2, Verified CAT 5E; UL File E116441, Vol. 1, Sec. 6, Page 8; UL style 20201

<b>Attenuation</b>								
<b>Max. insertion loss</b>								
<b>Frequency [MHz]</b>	<b>1</b>	<b>4</b>	<b>10</b>	<b>16</b>	<b>20</b>	<b>31.25</b>	<b>62.5</b>	<b>100</b>
[db/100 m]	1.6	3.2	5.2	6.9	7.8	10.5	15.0	19.5
[db/100 ft]	0.5	1	1.6	2.1	2.4	3.2	4.6	5.9
<b>Min. near-end crosstalk attenuation</b>								
<b>Frequency [MHz]</b>	<b>1</b>	<b>4</b>	<b>10</b>	<b>16</b>	<b>20</b>	<b>31.25</b>	<b>62.5</b>	<b>100</b>
[db/100 m]	80	75.0	70.0	65.0	63.0	60.0	55.0	50.0
[db/100 ft]	24.4	22.9	21.3	19.8	19.2	18.3	16.8	15.2

## Notes

- The following length tolerances apply: 2-3 %

<b>Ordering information</b>	<b>Length</b>
ZB9010	sold by the metre
ZB9010-R000	500 m

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