



Product: [DIW50](#)



Category 3 Backbone Cable, 50 Pair, U/UTP, CMR

Product Description

Category 3 Premise Backbone Cable (16MHz), DIW 50 Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, PVC jacket

Technical Specifications

Product Overview

Suitable Applications:	Premise Backbone Cable, Ethernet 10BASE-T, Analog Phone, FAX
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Construction Details

Conductor

Size	Stranding	Material	Number of Pairs
24	Solid	BC - Bare Copper	50

Insulation

Material	Color Code
PVC - Polyvinyl Chloride	Western Electric Bound in 25 Pair Sub-Units, Binder 1: Blue/White, Binder 2: Orange/White

Outer Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.540 in (13.7 mm)	Yes

Overall Cable Diameter (Nominal):	0.540 in (13.7 mm)
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Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km	330 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
16 MHz	543 ns/100m	45 ns/100m	68%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. RL (Return Loss) [dB]	Max./Min. Fitted Impedance
0.772	2.2 dB/100m	47.0	43.0	50.1	46.1		
1	2.6 dB/100m	45.0	41.0	47.8	43.8	12.0	100 ± 15 Ohm
4	5.6 dB/100m	36.0	32.0	36.0	32.0	12.0	100 ± 15 Ohm
8	8.5 dB/100m	31.0	28.0	28.3	24.3	12.0	100 ± 15 Ohm
10	9.7 dB/100m	30.0	26.0	26.2	22.3	12.0	100 ± 15 Ohm
16	13.1 dB/100m	27.0	23.0	20.1	16.1	10.0	100 ± 15 Ohm

Voltage

UL Voltage Rating
300 V (CMR)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
60°C	-30°C To +60°C	-30°C To +60°C	-30°C To +60°C

Bend Radius

Stationary Min.	Installation Min.
5.5 in (140 mm)	11.0 in

Max. Pull Tension:	300 lbs (140 kg)
Bulk Cable Weight:	179 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Riser, Indoor
Flammability / Reaction to Fire:	UL 1666 Riser, FT4
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	CMR
CEC / C(UL) Compliance:	CMR
Data Category:	Category 3
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 3
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2017-07-10
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	DPLN50

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Print Includes Descending Footage/Meter Markings.
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History

Update and Revision:	Revision Number: 0.440 Revision Date: 01-20-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
DIW50 732CUT	Olive	Cut to Length		612825060659
DIW50 732CUT	Olive	Cut to Length	1 ft	612825060659
DIW50 7321000	Olive	Reel	1,000 ft	612825060666
DIW50 7321000	Olive	Reel	1,000 ft	612825060666
DIW50 7322500	Olive	Reel	2,500 ft	612825060673
DIW50 7322500	Olive	Reel	2,500 ft	612825060673

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