

**Product:** [DIW50](#) 



CAT3 Backbone, 50pr, UTP, PVC Jkt, CMR

**Product Description**

CAT3 (16MHz), DIW 50-Pair, U/UTP-unshielded, Riser-CMR, Premise Backbone Cable, 24 AWG solid bare copper conductors, PVC insulation, ripcord, PVC jacket

**Technical Specifications**

**Product Overview**

Suitable Applications:	Premise Backbone Cable
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**Physical Characteristics (Overall)**

**Conductor**

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	50

Conductor Count:	100
Total Number of Pairs:	50

**Insulation**

Material
PVC - Polyvinyl Chloride

Bonded-Pair:	N/A
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**Color Chart**

Number	Color
1	White/Blue & Blue/White
2	White/Orange & Orange/White
3	White/Green & Green/White
4	White/Brown & Brown/White
5	White/Slate & Slate/White
6	Red/Blue & Blue/Red
7	Red/Orange & Orange/Red
8	Red/Green & Green/Red
9	Red/Brown & Brown/Red
10	Red/Slate & Slate/Red
11	Black/Blue & Blue/Black
12	Black/Orange & Orange/Black
13	Black/Green & Green/Black
14	Black/Brown & Brown/Black
15	Black/Slate & Slate/Black
16	Yellow/Blue & Blue/Yellow
17	Yellow/Orange & Orange/Yellow
18	Yellow/Green & Green/Yellow
19	Yellow/Brown & Brown/Yellow
20	Yellow/Slate & Slate/Yellow
21	Violet/Blue & Blue/Violet

22	Violet/Orange & Orange/Violet
23	Violet/Green & Green/Violet
24	Violet/Brown & Brown/Violet
25	Violet/Slate & Slate/Violet
Group One Binder	White/Blue
Group Two Binder	White/Orange

#### Color Chart 2

Number	Color
1	Blue/White
2	Orange/White

#### Outer Jacket Material

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	0.540 in	Yes

## Electrical Characteristics

#### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
93.8 Ohm/km	5 %

#### Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
330 pF/100m	17 pF/ft

#### Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
16 MHz	543 ns/100m	45 ns/100m	68%

#### High Freq

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 MHz	2.2 dB/100m	47.0 dB	43.0 dB	50.1 dB	46.1 dB		
1 MHz	2.6 dB/100m	45.0 dB	41.0 dB	47.8 dB	43.8 dB	12.0 dB	100 ± 15 Ohm
4 MHz	5.6 dB/100m	36.0 dB	32.0 dB	36.0 dB	32.0 dB	12.0 dB	100 ± 15 Ohm
8 MHz	8.5 dB/100m	31.0 dB	28.0 dB	28.3 dB	24.3 dB	12.0 dB	100 ± 15 Ohm
10 MHz	9.7 dB/100m	30.0 dB	26.0 dB	26.2 dB	22.3 dB	12.0 dB	100 ± 15 Ohm
16 MHz	13.1 dB/100m	27.0 dB	23.0 dB	20.1 dB	16.1 dB	10.0 dB	100 ± 15 Ohm

#### Voltage

UL Voltage Rating
300 V RMS

## Temperature Range

Installation Temp Range:	-30°C To +60°C
UL Temp Rating:	60°C
Storage Temp Range:	-30°C To +60°C
Operating Temp Range:	-30°C To +60°C

## Mechanical Characteristics

Bulk Cable Weight:	179 lbs/1000ft
Max. Pull Tension:	300 lbs
Min Bend Radius During Installation:	11.0 in
Min Bend Radius/Minor Axis:	5.5 in

## Standards

NEC/(UL) Compliance:	CMR
CEC/C(UL) Compliance:	CMR
Data Category:	Category 3
ANSI Compliance:	S-90-661-2012 Category 3, ANSI/NEMA WC-63.1 Category 3
TIA/EIA Compliance:	ANSI/TIA-568-C.2 Category 3

## Applicable Environmental and Other Programs

Environmental Space:	Riser
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2005-08-19
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	No
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

## Flammability, LSOH, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL 1666 Riser
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	DPLN50

## Part Number

### 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

## 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: 0.322 Revision Date: 04-28-2020
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