



**Product:** [DIW12](#)

Category 3 Backbone Cable, 12 Pair, U/UTP, CMR

## Product Description

Category 3 Premise Backbone Cable (16MHz), DIW 12 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 |
|------------------------|--|

### Construction Details

#### Conductor

| AWG | Stranding | Material         | Number of Pairs |
|-----|-----------|------------------|-----------------|
| 24  | Solid     | BC - Bare Copper | 12              |

#### Insulation

| Material                 | Color Code                     |
|--------------------------|--------------------------------|
| PVC - Polyvinyl Chloride | Western Electric (Non-Striped) |

|              |    |
|--------------|----|
| Bonded-Pair: | No |
|--------------|----|

#### Outer Jacket Material

| Material                 | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.270 in      | Yes     |

### Electrical Characteristics

#### Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. Capacitance Unbalance | Nom. Mutual Capacitance | Nom. Velocity of Prop. |
|--------------------|--------------------|----------------------------|-------------------------|------------------------|
| 93.8 Ohm/km        | 5%                 | 330 pF/100m                | 17 pF/ft                | 68%                    |

#### Delay

| Frequency [MHz] | Max. Delay  | Max. Delay Skew | Nom. 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 (CMR)       |

## Mechanical Characteristics

### Temperature

| UL Rating | 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. |
|-----------------|-------------------|
| 2.75 in         | 5.5 in            |

|                    |               |
|--------------------|---------------|
| Max. Pull Tension: | 75 lbs        |
| Bulk Cable Weight: | 43 lbs/1000ft |

## Standards and Compliance

|                                 |  |
|---------------------------------|--|
| Environmental Suitability:      | Riser, Indoor  |
| Flammability / Fire Resistance: | UL 1666 Riser, FT4, FT4, IEC 60332-1-2   |
| NEC / UL Compliance:            | CMR  |
| CEC / C(UL) Compliance:         | CMR  |
| ICEA Compliance:                | S-90-661-2012  |
| NEMA Compliance:                | NEMA WC-63.1   |
| Data Category:                  | Category 3   |
| TIA/EIA Compliance:             | ANSI/TIA-568.2-D Category 3  |
| CPR Euroclass:                  | Eca  |
| European Directive Compliance:  | EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| APAC Compliance:                | China RoHS II (GB/T 26572-2011)  |

## Part Number

### Variants

| Item #        | Color             | Putup Type | Length   | UPC          |
|---------------|-------------------|------------|----------|--------------|
| DIW12 732CUT  | Gray, Light Olive |            |          |              |
| DIW12 7321000 | Olive             | Reel       | 1,000 ft | 612825060604 |
| DIW12 7321000 | Olive             | Reel       | 1,000 ft | 612825060604 |

## 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. |
|--------|--|

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.344 Revision Date: 07-28-2020 |
|----------------------|--|

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#### Как с нами связаться

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