

## DIW50 Multi-Conductor - Category 3 Nonbonded-Pair Cable



For more Information  
please call

1-800-Belden1



### General 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

### Usage (Overall)

Suitable Applications: Premise Backbone Cable

### Physical Characteristics (Overall)

#### Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 50      | 24  | Solid     | BC - Bare Copper   |

Total Number of Conductors: 100

#### Insulation

Insulation Material:

| Insulation Material      |
|--------------------------|
| PVC - Polyvinyl Chloride |

#### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.540           |

#### Overall Cable

Overall Cabling Color Code Chart:

| Number | Group/Cond. Color |
|--------|-------------------|
| 1      | Blue/White        |
| 2      | Orange/White      |

#### Pair

Pair Color Code Chart:

| Number | Color         |
|--------|---------------|
| 1      | White/Blue    |
| 2      | White/Orange  |
| 3      | White/Green   |
| 4      | White/Brown   |
| 5      | White/Slate   |
| 6      | Red/Blue      |
| 7      | Red/Orange    |
| 8      | Red/Green     |
| 9      | Red/Brown     |
| 10     | Red/Slate     |
| 11     | Black/Blue    |
| 12     | Black/Orange  |
| 13     | Black/Green   |
| 14     | Black/Brown   |
| 15     | Black/Slate   |
| 16     | Yellow/Blue   |
| 17     | Yellow/Orange |
| 18     | Yellow/Green  |
| 19     | Yellow/Brown  |
| 20     | Yellow/Slate  |
| 21     | Violet/Blue   |
| 22     | Violet/Orange |

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|    |              |
|----|--------------|
| 23 | Violet/Green |
| 24 | Violet/Brown |
| 25 | Violet/Slate |

### Mechanical Characteristics (Overall)

|                                   |                  |
|-----------------------------------|------------------|
| Operating Temperature Range:      | -30°C To +60°C   |
| UL Temperature Rating:            | 60°C             |
| Bulk Cable Weight:                | 200 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 300 lbs.         |
| Min. Bend Radius/Minor Axis:      | 5.500 in.        |
| Min. Bend/Installation:           | 5.500 in.        |

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

|                                       |   |
|---------------------------------------|---|
| NEC/(UL) Specification:               | CMR   |
| CEC/C(UL) Specification:              | CMR   |
| EU Directive 2011/65/EU (ROHS II):    | Yes   |
| EU Directive 2000/53/EC (ELV):        | Yes   |
| EU Directive 2002/95/EC (RoHS):       | Yes   |
| EU RoHS Compliance Date (mm/dd/yyyy): | 08/19/2005  |
| EU Directive 2002/96/EC (WEEE):       | Yes   |
| EU Directive 2003/11/EC (BFR):        | Yes   |
| CA Prop 65 (CJ for Wire & Cable):     | Yes   |
| MII Order #39 (China RoHS):           | Yes   |
| Other Specification:                  | Meets Category 3 transmission performance requirements for multi-pair backbone cables as specified by TIA/EIA 568 B-2, including power-sum NEXT |

#### Flame Test

|                   |              |
|-------------------|--------------|
| UL Flame Test:    | UL1666 Riser |
| C(UL) Flame Test: | FT4          |

#### Plenum/Non-Plenum

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

### Electrical Characteristics (Overall)

#### Maximum Conductor DC Resistance:

|                               |
|-------------------------------|
| <b>DCR @ 20°C (Ohm/100 m)</b> |
| 9.380                         |

#### Maximum DCR Unbalanced:

|                                 |
|---------------------------------|
| <b>DCR Unbalance @ 20°C (%)</b> |
| 5.000                           |

### Electrical Characteristics-Premise (Overall)

#### Premise Cable Electricals:

| Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. PSNEXT (dB) | Min. SRL (dB) | Fitted Imp. (Ohms) |
|-------------|-----------------------------|------------------|---------------|--------------------|
| .772        | 2.200                       | 43               |               |                    |
| 1.0         | 2.600                       | 41               | 12            | 100 +/- 15         |
| 4.0         | 5.600                       | 32               | 12            | 100 +/- 15         |
| 8.0         | 8.500                       | 28               | 12            | 100 +/- 15         |
| 10.0        | 9.700                       | 26               | 12            | 100 +/- 15         |
| 16.0        | 13.100                      | 23               | 10            | 100 +/- 15         |

### Notes (Overall)

**Notes:** Jacket sequentially printed with dual footage and meter markings.

### Reference (Overall)

|                       |          |
|-----------------------|----------|
| Previous Part Number: | 24501876 |
|-----------------------|----------|

### Put Ups and Colors:

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| Item #        | Putup    | Ship Weight | Color             | Notes | Item Desc                      |
|---------------|----------|-------------|-------------------|-------|--------------------------------|
| DIW50 732CUT  | 1 FT     | 0.000       | GRAY, LIGHT OLIVE |       | CAT3 50PR U/UTP CMR CUT        |
| DIW50 7321000 | 1,000 FT | 190.000 LB  | GRAY, LIGHT OLIVE |       | CAT3 50PR U/UTP CMR REEL SMI80 |
| DIW50 7322500 | 2,500 FT | 475.000 LB  | GRAY, LIGHT OLIVE |       | CAT3 50PR U/UTP CMR REEL       |

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