



**Product:** [IBDN25P](#) 

Category 5e Backbone Cable, 25 Pair, U/UTP, CMP

## Product Description

Category 5e Premise Backbone Cable (100MHz), 25 Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Plenum-CMP, PVC-LS Jacket

## Technical Specifications

### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | Premise Backbone Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE |
|------------------------|---|

### Construction Details

#### Conductor

| Size   | Stranding | Material         | No. of Pairs |
|--------|-----------|------------------|--------------|
| 24 AWG | Solid     | BC - Bare Copper | 25           |

#### Insulation

| Material                             | Color Code                     |
|--------------------------------------|--------------------------------|
| FEP - Fluorinated Ethylene Propylene | Western Electric (Non-Striped) |

#### Outer Jacket

| Material                             | Nom. Diameter      | Ripcord |
|--------------------------------------|--------------------|---------|
| FEP - Fluorinated Ethylene Propylene | 0.478 in (12.1 mm) | Yes     |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.478 in (12.1 mm) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Electricals

| Max. Conductor DCR            | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 330 pF/100m                |

#### Delay

| Frequency | Max. Delay    | Max. Delay Skew | Nom. Velocity of Prop. |
|-----------|---------------|-----------------|------------------------|
| 100 MHz   | 537.6 ns/100m | 45 ns/100m      | 72%                    |

#### High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. PSNEXT [dB] | Min. RL (Return Loss) [dB] | Max./Min. Fitted Impedance [Ohm] |
|-----------------|-----------------------------------|------------------|----------------------------|----------------------------------|
| 1               | 2.0 dB/100m                       | 62.3             | 20.0                       | 100 ± 15%                        |
| 4               | 4.1 dB/100m                       | 53.3             | 23.0                       | 100 ± 15%                        |
| 8               | 5.8 dB/100m                       | 48.8             | 24.5                       | 100 ± 15%                        |
| 10              | 6.5 dB/100m                       | 47.3             | 25.0                       | 100 ± 15%                        |
| 16              | 8.2 dB/100m                       | 44.3             | 25.0                       | 100 ± 15%                        |
| 20              | 9.3 dB/100m                       | 42.8             | 25.0                       | 100 ± 15%                        |
| 25              | 10.4 dB/100m                      | 41.3             | 24.3                       | 100 ± 15%                        |
| 31.25           | 11.7 dB/100m                      | 39.9             | 23.6                       | 100 ± 15%                        |
| 62.5            | 17.0 dB/100m                      | 35.4             | 21.5                       | 100 ± 15%                        |
| 100             | 22.0 dB/100m                      | 32.3             | 20.1                       | 100 ± 15%                        |

#### Voltage

|                          |
|--------------------------|
| <b>UL Voltage Rating</b> |
| 300 V (CMP)              |

## Mechanical Characteristics

### Temperature

| UL Temperature | Operating      | Installation | Storage        |
|----------------|----------------|--------------|----------------|
| 60°C           | -40°C To +60°C | 0°C To +60°C | -40°C To +60°C |

### Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 4.5 in (110 mm) | 8.75 in (222 mm)  |

|                    |                 |
|--------------------|-----------------|
| Max. Pull Tension: | 150 lbs (68 kg) |
| Bulk Cable Weight: | 137 lbs/1000ft  |

## Standards and Compliance

|                                       |   |
|---------------------------------------|---|
| Environmental Suitability:            | Plenum, Indoor  |
| Flammability / Reaction to Fire:      | NFPA 262, UL 910 (Plenum), FT6, IEC 60332-1-2   |
| CPR Compliance:                       | CPR Euroclass: Eca; CPR UKCA Class: Eca   |
| NEC / UL Compliance:                  | CMP   |
| CEC / C(UL) Compliance:               | CMP   |
| ICEA Compliance:                      | S-90-661  |
| NEMA Compliance:                      | NEMA WC-63.1  |
| Data Category:                        | Category 5e   |
| TIA/EIA Compliance:                   | ANSI/TIA-568.2-D Category 5e  |
| Third Party Performance Verification: | Category 5e   |
| ISO/IEC Compliance:                   | ISO/IEC 11801-1, IEC 61156-5  |
| European Directive Compliance:        | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| UK Regulation Compliance:             | UKCA Mark   |
| APAC Compliance:                      | China RoHS II (GB/T 26572-2011)   |
| Non-Plenum Number:                    | IBDN25R   |

## 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: 0.605 Revision Date: 09-07-2025 |
|----------------------|--|

## Part Numbers

### Variants

| Item #          | Color | Putup Type    | Length   | UPC          |
|-----------------|-------|---------------|----------|--------------|
| IBDN25P 008CUT  | Gray  | Cut to Length |          | 612825061885 |
| IBDN25P 008CUT  | Gray  | Cut to Length | 1 ft     | 612825061885 |
| IBDN25P 0081000 | Gray  | Reel          | 1,000 ft | 612825061892 |
| IBDN25P 0081000 | Gray  | Reel          | 1,000 ft | 612825061892 |

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