



Product: [7965ELY](#)

Category 6 Cable, 4 Pair, U/UTP, LSZH Indoor CPR Dca

Product Description
Category 6 Premise Horizontal Cable (250MHz), 4-Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Polyethylene Insulation, LSZH Jacket CPR Dca

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | Horizontal and building backbone cable; Support current and future Category 6 and 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM |
| Patent: | This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents . |

Construction Details

Conductor

| Element | Size | Stranding | Material | Number of Pairs | Number of Element |
|-----------------|--------|-----------|------------------|-----------------|-------------------|
| Individual Pair | 23 AWG | Solid | BC - Bare Copper | 4 | 8 |

Insulation

| Element | Material | Nom. Insulation Diameter | Color Code |
|-----------------|-------------------|--------------------------|--|
| Individual Pair | PE - Polyethylene | 1 mm (0.039 in) | White/Blue & Blue, White/Orange & Orange, White/Green & Green, White/Brown & Brown |

Cable Core

| Description |
|--------------------------|
| 4 pairs twisted together |

Outer Jacket

| Material | Nom. Diameter | Ripcord |
|---|------------------|---------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 5.5 mm (0.22 in) | Yes |

| | |
|-----------------------------------|------------------|
| Overall Cable Diameter (Nominal): | 5.5 mm (0.22 in) |
|-----------------------------------|------------------|

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Mutual Capacitance | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|--------------------|-------------------------|----------------------------|-------------------------------|
| 95 Ohm/km | 56 pF/m (17 pF/ft) | 160 pF/100m | 100 Ohm |

Delay

| Max. Delay Skew | Nom. Velocity of Prop. |
|-----------------|------------------------|
| 40 ns/100m | 70% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|---------------|------------------|
| 1 | 2.1 dB/100m | 75.3 | 72.3 | 73.2 | 70.2 | 70.0 | 67.0 | 20 | 40 | 35 |
| 4 | 3.8 dB/100m | 66.3 | 63.3 | 62.4 | 59.4 | 58.0 | 55.0 | 23 | 34 | 23 |
| 10 | 6.0 dB/100m | 60.3 | 57.3 | 54.3 | 51.3 | 50.0 | 47.0 | 25 | 30 | 15 |
| 16 | 7.6 dB/100m | 57.2 | 54.2 | 49.6 | 46.6 | 45.9 | 42.9 | 25 | 28 | 10.9 |
| 20 | 8.5 dB/100m | 55.8 | 52.8 | 47.3 | 44.3 | 44.0 | 41.0 | 25 | 27 | 9 |

| | | | | | | | | | | |
|------------------|--------------|--|------|------|------|------|------|------|------|-----|
| 31.2 | 10.7 dB/100m | 52.9 | 49.9 | 42.1 | 39.1 | 40.1 | 37.1 | 23.6 | 25 | 5.1 |
| 62.5 | 15.5 dB/100m | 48.4 | 45.4 | 32.9 | 29.9 | 34.1 | 31.1 | 21.5 | 22 | |
| 100 | 19.9 dB/100m | 45.3 | 42.3 | 25.4 | 22.4 | 30.0 | 27.0 | 20.1 | 20 | |
| 155 | 25.3 dB/100m | 42.4 | 39.4 | 17.1 | 14.1 | 26.2 | 23.2 | 18.8 | 18.1 | |
| 200 | 29.1 dB/100m | 40.8 | 37.8 | 11.6 | 8.6 | 24.0 | 21.0 | 18.0 | 17 | |
| 250 | 33.0 dB/100m | 39.3 | 36.3 | 6.3 | 3.3 | 22.0 | 19.0 | 17.3 | 16 | |
| Table Notes: | | Limits below 4 MHz are for information only. Reference standard: IEC 61156-5 | | | | | | | | |
| Screening Class: | | Type III | | | | | | | | |

Voltage

| Voltage Rating |
|----------------|
| 72 V DC |

Mechanical Characteristics

Temperature

| Operating | Installation |
|----------------|--------------|
| -30°C to +60°C | 0°C To +50°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 22 mm (0.87 in) | 44 mm |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 80 N (18 lbf) |
| Bulk Cable Weight: | 33 kg/km |

Standards and Compliance

| | |
|----------------------------------|--|
| Environmental Suitability: | Indoor - Euroclass Dca |
| Flammability / Reaction to Fire: | IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Dca-s2,d2,a1 |
| IEEE Compliance: | PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4 |
| Data Category: | Category 6 |
| TIA/EIA Compliance: | ANSI/TIA 568.2-D |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61034-2 - Smoke Density Min Transmittance = 60% |
| CENELEC Compliance: | EN 50173-1, Segregation class according EN50174-2 = a |
| European Halogen Free Standards: | IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3 |
| European Directive Compliance: | EU CE Mark |
| UK Regulation Compliance: | UKCA Mark |

Product Notes

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| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. |
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History

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| Update and Revision: | Revision Number: 0.83 Revision Date: 03-08-2023 |
|----------------------|---|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | EAN |
|----------------|-------|-------------|--------|---------------|
| 7965ELY.00305 | Blue | Reel | 305 m | 8719605189776 |
| 7965ELY.00A305 | Blue | Reel-in-Box | 305 m | 8719605191069 |
| 7965ELY.00500 | Blue | Reel | 500 m | 8719605176516 |
| 7965ELY.08305 | Gray | Reel | 305 m | 8719605189639 |
| 7965ELY.08A305 | Gray | Reel-in-Box | 305 m | 8719605191076 |
| 7965ELY.08500 | Gray | Reel | 500 m | 8719605189783 |

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