



Product: [1583E](#)

Category 5e Cable, 4 Pair, U/UTP, PVC Indoor CPR Eca

Product Description
Category 5e Premise Horizontal Cable (100MHz), 4-Pair, 24 AWG solid bare copper conductors, U/UTP, Polyethylene insulation, PVC jacket

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | Horizontal and building backbone cable; Support current and future Category 5e applications, such as: 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM |
|------------------------|---|

Construction Details

Conductor

| Element | Size | Stranding | Material | No. of Pairs |
|-----------------|------|-----------|------------------|--------------|
| Individual Pair | 24 | Solid | BC - Bare Copper | 4 |

Insulation

| Element | Material | Nom. Insulation Diameter | Color Code |
|-----------------|-------------------|--------------------------|--|
| Individual Pair | PE - Polyethylene | 0.9 mm (0.035 in) | White/Blue & Blue, White/Green & Green, White/Orange & Orange, White/Brown & Brown |

Outer Jacket

| Material | Nom. Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 4.5 mm (0.18 in) |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Mutual Capacitance | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|---------------------------|-------------------------|----------------------------|-------------------------------|
| 95 Ohm/km (29 Ohm/1000ft) | 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 | 65.3 | 62.3 | 63.2 | 60.2 | 64 | 61 | 20 | 40 | 35 |
| 4 | 4 dB/100m | 56.3 | 53.3 | 52.32 | 49.3 | 52 | 49 | 23 | 34 | 23 |
| 10 | 6.3 dB/100m | 50.3 | 47.3 | 44 | 41 | 44 | 41 | 25 | 30 | 15 |
| 16 | 8 dB/100m | 47.2 | 44.2 | 39.2 | 36.2 | 39.9 | 36.9 | 25 | 28 | 10.9 |
| 20 | 9 dB/100m | 45.8 | 42.8 | 36.8 | 33.8 | 38 | 35 | 25 | 27 | 9 |
| 31.25 | 11.4 dB/100m | 42.9 | 39.9 | 31.5 | 28.5 | 34.1 | 31.5 | 23.6 | 25.1 | 5.5 |
| 62.5 | 16.5 dB/100m | 38.4 | 35.4 | 21.9 | 18.9 | 28.1 | 25.1 | 21.5 | 22 | |
| 100 | 21.3 dB/100m | 35.3 | 32.3 | 14 | 11 | 24 | 21 | 20.1 | 20 | |

Table Notes: Limits below 4 MHz are for information only. Reference standard: IEC 61156-5

Voltage

| Voltage Rating |
|----------------|
|----------------|

72 V DC

Mechanical Characteristics

Temperature

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

Bend Radius

| Installation Min. |
|-------------------|
| 40 mm (1.6 in) |

| | |
|--------------------|--------------------------|
| Max. Pull Tension: | 65 N (15 lbf) |
| Bulk Cable Weight: | 28 kg/km (19 lbs/1000ft) |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor - Euroclass Eca |
| Flammability / Reaction to Fire: | IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca; CPR UKCA Class: Eca |
| IEEE Compliance: | PoE: IEEE 802.3bt Type 1, Type 2, Type 3 |
| Data Category: | Category 5e |
| ISO/IEC Compliance: | ISO/IEC 11801-1 |
| CENELEC Compliance: | EN 50173-1, Segregation class according EN50174-2 = a |
| UK Regulation Compliance: | UKCA Mark |

Product Notes

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

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.291 Revision Date: 12-12-2023 |
|----------------------|--|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | EAN |
|--------------|----------------|------------|---------|---------------|
| 1583E.03305 | Black | Reel | 305 m | 8719605002143 |
| 1583E.03U305 | Black | UnReel | 305 m | 8719605002150 |
| 1583E.01B100 | Blue | Flat Box | 100 m | 8719605002129 |
| 1583E.01305 | Blue | Reel | 305 m | 8719605002105 |
| 1583E.01U305 | Blue | UnReel | 305 m | 8719605002136 |
| 1583E.01500 | Blue | Reel | 500 m | 8719605002112 |
| 1583E.011000 | Blue | Reel | 1,000 m | 8719605002099 |
| 1583E.00B100 | Gray, RAL 7032 | Flat Box | 100 m | 8719605002075 |
| 1583E.00305 | Gray, RAL 7032 | Reel | 305 m | 8719605002044 |
| 1583E.00U305 | Gray, RAL 7032 | UnReel | 305 m | 8719605002082 |
| 1583E.00500 | Gray, RAL 7032 | Reel | 500 m | 8719605002068 |
| 1583E.001000 | Gray, RAL 7032 | Reel | 1,000 m | 8719605002037 |
| 1583E.003500 | Gray, RAL 7032 | Reel | 3,500 m | 8719605176783 |
| 1583E.003570 | Gray, RAL 7032 | Reel | 3,570 m | 8719605002051 |
| 1583E.09305 | Green | Reel | 305 m | 8719605002204 |
| 1583E.09U305 | Green | UnReel | 305 m | 8719605002228 |
| 1583E.09500 | Green | Reel | 500 m | 8719605002211 |
| 1583E.11305 | Red | Reel | 305 m | 8719605002259 |
| 1583E.11U305 | Red | UnReel | 305 m | 8719605002266 |
| 1583E.12B100 | White | Flat Box | 100 m | 8719605002273 |
| 1583E.04U305 | White | UnReel | 305 m | 8719605002174 |
| 1583E.12U305 | White | UnReel | 305 m | 8719605002280 |
| 1583E.04500 | White | Reel | 500 m | 8719605002167 |
| 1583E.10305 | Yellow | Reel | 305 m | 8719605002235 |
| 1583E.10U305 | Yellow | UnReel | 305 m | 8719605002242 |

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.