BELDEN



Product: 1583ENH

Category 5e Cable, 4 Pair, U/UTP, LSZH Indoor CPR Dca

Product Description

Category 5e Premise Horizontal Cable (100MHz), 4-Pair, 24 AWG solid bare copper conductors, U/UTP, Polyethylene insulation, LSZH 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
LSZH - Low Smoke Zero Halogen (Flame Retardant)	4.6 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 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
Data Category:	Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5, IEC 60754-1, IEC 60754-2, 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
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: 0.293 Revision Date: 12-12-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
1583ENH.10U305	Black	UnReel	305 m	8719605002570
1583ENH.01305	Blue	Reel	305 m	8719605002433
1583ENH.01U305	Blue	UnReel	305 m	8719605002457
1583ENH.01500	Blue	Reel	500 m	8719605002440
1583ENH.011000	Blue	Reel	1,000 m	8719605125194
1583ENH.00B100	Gray, RAL 7032	Flat Box	100 m	8719605002419
1583ENH.00305	Gray, RAL 7032	Reel	305 m	8719605002389
1583ENH.00U305	Gray, RAL 7032	UnReel	305 m	8719605002426
1583ENH.00500	Gray, RAL 7032	Reel	500 m	8719605002402
1583ENH.001000	Gray, RAL 7032	Reel	1,000 m	8719605002372
1583ENH.003570	Gray, RAL 7032	Reel	3,570 m	8719605002396
1583ENH.02U305	Green	UnReel	305 m	8719605002464
1583ENH.04U305	Orange	UnReel	305 m	8719605002501
1583ENH.04500	Orange	Reel	500 m	8719605002495
1583ENH.07U305	Red	UnReel	305 m	8719605002549
1583ENH.07500	Red	Reel	500 m	8719605002532
1583ENH.05U305	Violet	UnReel	305 m	8719605002525
1583ENH.05500	Violet	Reel	500 m	8719605002518
1583ENH.09U305	White	UnReel	305 m	8719605002563
1583ENH.03U305	Yellow	UnReel	305 m	8719605002488
1583ENH.031000	Yellow	Reel	1,000 m	8719605002471

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