Belden



Product: 7860ESLY

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

Product Description

Category 6 Premise Horizontal Cable (250MHz), 4-Pair, 23 AWG solid bare copper conductors, SF/UTP, Polyethylene insulation, Beldfoil® shield, AWG 26 solid tinned copper drainwire, tinned copper braid shield (40% coverage), LSZH jacket

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

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs
Individual Pair	23 AWG	Solid	BC - Bare Copper	4

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Pair	PE - Polyethylene	1.35 mm (0.0531 in)	White/Blue & Blue, White/Green & Green, White/Orange & Orange, White/Brown & Brown

Bonded-Pair:	Yes

Cable Core

Description	Separator
4 pairs twisted together covered with a polyester foil	Center Member (Patented X-Spline®)

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	26 AWG (Solid) TC
Braid	Tinned Copper (TC)	40%	

Outer Shield Table Notes:	Aluminum facing outside in contact with drain wire

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.4 mm (0.29 in)

Overall Cable Diameter (Nominal):	7.4 mm (0.29 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	67%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	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	75.3	72.3	73.2	70.2	70	67	20	40	35
4	3.8	66.3	63.3	62.4	59.4	58	55	23	34	23
10	6	60.3	57.3	54.3	51.3	50	47	25	30	15
16	7.6	57.2	54.2	49.6	46.6	45.9	42.9	25	28	10.9
20	8.5	55.8	52.8	47.3	44.3	44	41	25	27	9
31.2	10.7	52.9	49.9	42.1	39.1	40.1	37.1	23.6	25.1	5.1
62.5	15.5	48.4	45.4	32.9	29.9	34.1	31.1	21.5	22	
100	19.9	45.3	42.3	25.4	22.4	30	27	20.1	20	
155	25.3	42.4	39.4	17.1	14.1	26.2	23.2	18.8	18.1	
200	29.1	40.8	37.8	11.6	8.6	24	21	18	17	
250	33	39.3	36.3	6.3	3.3	22	19	17.3	16	

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

Transfer Impedance

Frequency	Max. Transfer Impedance
1 Mhz	Max. 50 mOhm/m
10 Mhz	Max. 100 mOhm/m
30 Mhz	Max. 200 mOhm/m
100 Mhz	Max. 1000 mOhm/m

Transfer Impedance Class:	Grade 2
Screening Class:	Type II
Screening Table Notes:	Coupling Attenuation

Voltage

Voltage Rating
72 V DC

Mechanical Characteristics

Temperature

Operating
-30°C To +60°C

Bend Radius

Stationary Min.	Installation Min.
30 mm (1.2 in)	60 mm (2.4 in)

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	56 kg/km (38 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Dca
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Dca-s3,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
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = c
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, IEC 61034-2 - Smoke Density Min. Transmittance = 60%
European Directive Compliance:	EU CE Mark
UK Regulation Compliance:	UKCA Mark

History

Update and Revision:	Revision Number: 0.16 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
7860ESLY.08305	Gray	Reel	305 m	8719605209283
7860ESLY.K8305	Gray	Reel	305 m	8719605209344
7860ESLY.00500	Gray	Reel	500 m	8719605208903

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