



Product: [7860NBH](#)

Category 6 Cable, 4 Pair, F/UTP, LSZH Indoor CPR Eca

Product Description

Category 6 Premise Horizontal Cable (250MHz), 4-Pair, 23 AWG solid bare copper conductors, F/UTP, Polyethylene insulation, Beldfoil® shield, AWG 26 solid tinned copper drainwire, 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	No. of Elements
Individual Pair	23 AWG	Solid	BC - Bare Copper	4	8

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Pair	PE - Polyethylene	1.15 mm (0.0453 in)	White/Blue & Blue, White/Green & Green, White/Orange & Orange, White/Brown & Brown

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

Table Notes:	Aluminum facing outside in contact with drain wire
--------------	--

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	6.9 mm (0.27 in)

Overall Cable Diameter (Nominal):	6.9 mm (0.27 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	68%

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	67	20	40	35
4	3.8 dB/100m	66.3	63.3	62.4	59.4	58	55	23	34	23
10	6 dB/100m	60.3	57.3	54.3	51.3	50	47	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	41	25	27	9
31.2	10.7 dB/100m	52.9	49.9	42.1	39.1	40.1	37.1	23.6	25.1	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	27	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	21	18	17	
250	33 dB/100m	39.3	36.3	6.3	3.3	22	19	17.3	16	

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
Table Notes:	Coupling Attenuation

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.
29 mm (1.1 in)	58 mm

Max. Pull Tension:	80 N (18 lbf)
Bulk Cable Weight:	48 kg/km

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Eca
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: 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, IEC 61034-2 - Smoke Density Min Transmittance = 60%
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
European Directive Compliance:	EU CE Mark
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: 0.417 Revision Date: 12-12-2023
----------------------	--

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
7860NBH.01305	Blue	Reel	305 m	8719605016720
7860NBH.01500	Blue	Reel	500 m	8719605016737
7860NBH.00305	Gray, RAL 7032	Reel	305 m	8719605016706
7860NBH.00500	Gray, RAL 7032	Reel	500 m	8719605016713
7860NBH.02305	Violet	Reel	305 m	8719605016744

© 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.