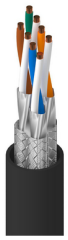

Product: 74004NH

DataTuff® 7, 4PR #23 Sol BC, PO ins, S/FTP, LSNH Jkt, AWM 20851, Dca

Product Description

DataTuff® 7, 4 Pair AWG 23 Bare Copper - Solid, Polyethylene insulation, S/FTP - Overall Braid / Individual Foil shielding, LSZH / FRNC jacket , AWM 20851

Technical Specifications

Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, video, audio, data communication, etc.
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 Shielded Pair	23 AWG	Solid	BC - Bare Copper	4	8

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Shielded Pair	PE - Polyethylene (Foam)	1.45 mm (0.0571 in)	White & Blue, White & Orange, White & Green, White & Brown

Cable Core

Description
4 pairs twisted to cable core

Inner Shield

Element	Shield Type	Material	Coverage
Individual Shielded Pair	Tape	Bi-Laminate (Alum+Poly)	100%

Table Notes:	Aluminum outside

Outer Shield

Shield Type	Material	Coverage
Braid	Tinned Copper (TC)	65%

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	8 mm (0.31 in)

Overall Cable Diameter (Nominal):	8 mm (0.31 in)

Electrical Characteristics

Electricals

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

Delay

Max. Delay Skew	Nom. Velocity of Prop.
40 ns/100m	78%

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]
1	2 dB/100m	78	75	73	70	78	75	20
4	3.7 dB/100m	78	75	74.3	71.3	78	75	23
10	5.9 dB/100m	78	75	72.1	69.1	75.3	72.3	25
16	7.4 dB/100m	78	75	70.6	67.6	71.2	68.2	25
31.2	10.4 dB/100m	78	75	67.6	64.6	65.4	62.4	23.6
62.5	14.9 dB/100m	75.5	72.5	60.6	57.6	59.4	56.4	21.5
100	19 dB/100m	72.4	69.4	53.4	50.4	55.3	52.3	20.1
125	21.4 dB/100m	70.9	67.9	49.6	46.6	53.4	50.4	19.4
200	27.5 dB/100m	67.9	64.9	40.4	37.4	49.3	46.3	15
250	31 dB/100m	66.4	63.4	35.5	32.5	47.3	44.3	17.3
300	34.2 dB/100m	65.2	62.2	31.1	28.1	45.8	42.8	17.3
600	50.1 dB/100m	60.7	57.7	10.6	7.6	39.7	36.7	17.3
1000	66.9 dB/100m	57.4	54.4			35.3	32.3	15.1

Table Notes:	Limits below 4 MHz are for information only.; Values at 1000 MHz are for information only. Reference standard: IEC 61156-5

Transfer Impedance

Frequency	Max. Transfer Impedance
1 MHz	Max. 5 mOhm/m
10 MHz	Max. 5 mOhm/m
30 MHz	Max. 30 mOhm/m
100 MHz	100 mOhm/m

Transfer Impedance Class:	Grade 1
Screening Class:	Type Ib
Table Notes:	Coupling Attenuation

Voltage

UL Voltage Rating	Voltage Rating
30 V RMS	125 V (non UL)

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-40°C to +80°C	-15°C To +60°C	-40°C to +80°C

Bend Radius

Stationary Min.	Installation Min.
40 mm (1.6 in)	80 mm

Max. Pull Tension:	80 N (18 lbf)

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Dca, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-24, EN 50266-2-4
CPR Compliance:	CPR Euroclass: Dca-s1,d1,a1; CPR UKCA Class: Dca-s1,d1,a1
AWM Compliance:	AWM 20851
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 7
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 = d
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

History

Update and Revision:	Revision Number: 0.309 Revision Date: 11-09-2022

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
74004NH.01B100	Black	Flat Box	100 m	8719605013217
74004NH.01305	Black	Reel	305 m	8719605013194
74004NH.01500	Black	Reel	500 m	8719605013200
74004NH.011000	Black	Reel	1,000 m	8719605013187
74004NH.031000	Blue	Reel	1,000 m	8719605160478
74004NH.02500	Gray, RAL 7032	Reel	500 m	8719605130006
74004NH.041000	Green	Reel	1,000 m	8719605196767
74004NH.051000	Orange	Reel	1,000 m	8719605196774