

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 - foamskin, Polyethylene insulation, S/FTP - Overall Braid / Individual Foil shielding, LSZH / FRNC jacket , AWM 20851

Technical Specifications

Product Overview

Suitable Applications:	Cat7, 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

Size	Stranding	Material	No. of Pairs	No. of Elements
23 AWG	Solid	BC - Bare Copper	4	8

Insulation

Material	Nom. Insulation Diameter	Color Code
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: 0.324 Revision Date: 05-15-2024

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

© 2025 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.