

Product: 70007NH

DataTuff® 5E, 1Q #22 Str TC, PO ins, F/B, LSNH Jkt, PROFINET Type B UL AWM 21286

Product Description

DataTuff® 5E, 1 Quad AWG 22 Tinned Copper - Stranded, Polyethylene insulation, SF/UTP - Overall Braid + Foil shielding, LSZH / FRNC jacket , PROFINET Type B UL AWM 21286

Technical Specifications

Product Overview

Suitable Applications:	PROFINET, harsh environment, IIoT, factory or process automation, IP cameras and devices, 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
22 AWG	7x0.25 mm	TC - Tinned Copper	2	4

Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene	1.55 mm (0.0610 in)	White & Blue & Yellow & Orange
		1 Quad

Cable Core

Description
1 quad with center filler

Inner Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	4.1 mm (0.16 in)

Table Notes:	Bedding

Outer Shield

Shield Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	
Braid	Tinned Copper (TC)	85%

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	6.5 mm

Overall Cable Diameter (Nominal):	6.5 mm (0.26 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Nom. Characteristic Impedance
57.1 Ohm/km	100 Ohm

Delay

Max. Delay	Nom. Velocity of Prop.
530 ns/100m	68%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. SRL (Structural Return Loss) [dB]
1	2.1 dB/100m	65.3	64	
4	4.1 dB/100m	56.3	52	23
10	6.5 dB/100m	50.3	44	25
16	8.3 dB/100m	47.2	40	25
31.25	11.7 dB/100m	43	34	23.6
62.5	17 dB/100m	38.4	28	21.5
100	22 dB/100m	35.3	24	20.1

Table Notes:	Reference standard: ISO/IEC 11801 ed 2.0, Cat 5e

Transfer Impedance

Frequency	Max. Transfer Impedance
10 MHz	Max. 10 mOhm/m

Voltage

UL Voltage Rating	Voltage Rating
300 V RMS	300 V

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-25°C to +70°C	-5°C To +50°C	-40°C to +70°C

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Eca, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-24
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
Data Category:	Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1
CENELEC Compliance:	EN 50173-1
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: 0.270 Revision Date: 12-20-2022

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
70007NH.01B100	Green	Flat Box	100 m	8719605009388
70007NH.01305	Green	Reel	305 m	8719605009364
70007NH.01500	Green	Reel	500 m	8719605009371
70007NH.011000	Green	Reel	1,000 m	8719605009357

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