

Product: 74011NH

DataTuff® 6A, 4PR #23 Str BC, PO ins, S/FTP, LSNH Jkt, PROFINET Type B, AWM 20851

Product Description

DataTuff® 6A, 4 Pair AWG 23 Bare Copper - Stranded, Polyethylene insulation, S/FTP - Overall Braid / Individual Foil shielding, LSZH / FRNC jacket , PROFINET Type B, AWM 20851

Technical Specifications

Product Overview

Suitable Applications:	PROFINET Cat6A, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs	No. of Elements
Individual Shielded Pair	23 AWG	Stranded	BC - Bare Copper	4	8

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Shielded Pair	PE - Polyethylene (Foam)	1.58 mm (0.0622 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)	85%

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	8.7 mm (0.34 in)

Overall Cable Diameter (Nominal):	8.7 mm (0.34 in)

Electrical Characteristics

Electricals

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

Delay

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

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. ELTCTL [dB]
1	2.1	75.3	73.2	70.2	68	20	35
4	3.8	66.3	62.5	59.5	56	23	23
10	5.9	60.3	54.4	51.4	48	25	15
16	7.5	57.2	49.8	46.8	43.9	25	10.9
31.2	10.5	52.9	42.4	39.4	38.1	23.6	5.1
62.5	15.0	48.4	33.4	30.4	32.1	21.5	
100	19.1	45.3	26.6	23.2	28.0	20.1	
125	21.5	43.8	22.3	19.3	26.1	19.4	
200	27.6	40.8	13.2	10.2	22.0	18	
250	31.1	39.3	8.3	5.3	20.0	17.3	
300	34.3	38.1	3.9	0.9	18.5	17.3	
500	45.3	34.8			14.0	17.3	

Table Notes:	Limits below 4MHz are for information only
Transfer Impedance Class:	Grade 1
Screening Class:	Type I
Table Notes:	Coupling Attenuation

Voltage

Voltage Rating
30 V AC

Mechanical Characteristics

Temperature

UL Temperature	Operating	Storage
80 °C	-40°C to +80°C	-40°C to +80°C

Bend Radius

Stationary Min.	Installation Min.
45 mm (1.8 in)	90 mm

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Eca, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
AWM Compliance:	AWM 20851
Data Category:	Category 6A
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: 0.254 Revision Date: 05-17-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
74011NH.01500	Gray	Reel	500 m	8719605195005
74011NH.00100	Green	Reel	100 m	8719605130075
74011NH.00500	Green	Reel	500 m	8719605128614
74011NH.02500	White	Reel	500 m	8719605199614

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