



**Product:** [74004ELW](#)

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

### Product Description

DataTuff® 7, 4 Pair AWG 23 Bare Copper - Solid, Polyolefin (PO, PE, PP) insulation, S/FTP - Overall Braid / Individual Foil shielding, LSZH / FRNC jacket , AWM 20851, Cca

### Technical Specifications

#### Product Overview

Suitable Applications:	Cat7, harsh environment, IIoT, factory or process automation, video, audio, data communication, etc.
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#### Construction Details

##### Conductor

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

##### Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin (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
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##### 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)

Table Notes:	0
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Overall Cable Diameter (Nominal):	8 mm (0.31 in)
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#### 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.
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40 ns/100m	78%
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### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	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	78	75	75	72	78	75	20
4	3.7	78	75	74.3	71.3	78	75	23
10	5.9	78	75	72.1	69.1	75.3	72.3	25
16	7.4	78	75	70.6	67.6	71.2	68.2	25
31.2	10.4	78	75	67.6	64.6	65.4	62.4	23.6
62.5	14.9	75.5	72.5	60.6	57.6	59.4	56.4	21.5
100	19	72.4	69.4	53.4	50.4	55.3	52.3	20.1
125	21.4	70.9	67.9	49.6	46.6	53.4	50.4	19.4
200	27.5	67.9	64.9	40.4	37.4	49.3	46.3	17
250	31	66.4	63.4	35.5	32.5	47.3	44.3	17.3
300	34.2	65.2	62.2	31.1	28.1	45.8	42.8	17.3
600	50.1	60.7	57.7	10.6	7.6	39.7	36.7	17.3
1000	66.9	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	30 V AC

## 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 (3.1 in)

Max. Pull Tension:	80 N (18 lbf)
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## Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Cca, Indoor, Sunlight Resistance - Black only, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Cca-s1,d1,a1; CPR UKCA Class: Cca-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

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