



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

DataTuff® 7, 4PR #23 Sol BC, PO ins, S/FTP, PVC jkt, AWM 20276

## Product Description

DataTuff® 7, 4 Pair AWG 23 Bare Copper - Solid, Polyolefin (PO, PE, PP) insulation, S/FTP - Overall Braid / Individual Foil shielding, PVC jacket , AWM 20276

## Technical Specifications

### Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, video, audio, data communication, etc. Not rodent protected.
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### Physical Characteristics (Overall)

#### Conductor

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

Conductor Count:	8
Total Number of Pairs:	4

#### Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
PO - Polyolefin (Foam)	1.45 mm	0.05 mm

Bonded-Pair:	No
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#### Color Chart

Number	Color
Pair 1	White & Blue
Pair 2	White & Orange
Pair 3	White & Green
Pair 4	White & Brown

#### Inner Shield Material

Type	Material
Tape	Bi-Laminate (Alum+Poly)

Table Notes:	Aluminum outside
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#### Outer Shield Material

Type	Material	Min. Coverage [%]
Braid	Tinned Copper (TC)	65%

#### Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance
PVC - Polyvinyl Chloride	8 mm	0.3 mm

### Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 %

Min Tensile Strength of Jacket:	12 MPa
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## Electrical Characteristics

### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalanced Within Pair [%]
75 Ohm/km	2 %

### Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance
1.6 pF/m	56 pF/m

### Impedance

Frequency [MHz]	Nominal Characteristic Impedance	Nominal Characteristic Tolerance	Nominal Input Impedance
4 - 100	100 Ohm	5 Ohm	100 +/- 15 Ohm
100 - 250	100 Ohm	22 Ohm	
250 - 600	100 Ohm	25 Ohm	

### Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
40 ns/100m	60%

Coupling Attenuation Class:	Type Ib
Segregation class according EN50174-2:	c

### Transfer Impedance

Frequency [MHz]	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

### Current

Element	Max. Recommended Current [A]
Conductor	1.4 Amps per Conductor

### Voltage

UL Voltage Rating	Voltage Rating [V]
30 V RMS	30 V AC

## Temperature Range

Installation Temp Range:	-15°C To +60°C
Storage Temp Range:	-40°C To +80°C
Operating Temp Range:	-40°C To +80°C

## Mechanical Characteristics

Oil Resistance:	IEC 60811-2-1
Max. Pull Tension:	80 N
Min Bend Radius (W/o Pulling Strength):	80 mm
Min Setting Radius:	40 mm

## Standards

UL AWM Style Compliance:	AWM 20276
IEC Compliance:	ISO/IEC 11801-1
CPR Euroclass:	Eca
GENELEC Compliance:	EN 50173-1
Data Category:	Category 7
ANSI Compliance:	ANSI/TIA 568.2-D (2018)
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4

## Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Eca
EU RoHS Compliance Date (yyyy-mm-dd):	2016-01-22

## Suitability

Suitability - Burial:	No
Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes - Black only
Suitability - Sunlight Resistance:	Yes

## Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
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## Part Number

### Variants

Item #	Color	Putup Type	Length	EAN
74004E.01B100	Black	Flat Box	100 m	8719605013170
74004E.01305	Black	Reel	305 m	8719605013156
74004E.01500	Black	Reel	500 m	8719605013163
74004E.011317	Black	Reel	1,317 m	
74004E.011524	Black	Reel	1,524 m	

## History

Update and Revision:	Revision Number: 0.224 Revision Date: 02-16-2021
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