



**Part Number:** 7934A

Cat 5e Waterblocked DataTuff®, (4 pr) 24 AWG Solid BC, PO/LLPE, EtherNet/IP, Direct Burial

## Product Description

Four Cat 5e 24 AWG Bonded-Pairs solid bare copper conductors, polyolefin insulation, polymer gel waterblocked, LLPE jacket.

## Product Specifications

## Technical Specifications

<b>Suitable Applications:</b>	Industrial Ethernet Cable, Harsh Environments, 200MHz Category 5e, Gigabit Ethernet, 100Base TX, 100BaseVG ANYLAN, 155A TM, 622A TM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, RJ-45 Compatible, Burial, Halogen Free
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## Construction and Dimensions

### Conductor:

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
24	Solid	BC - Bare Copper	0.02 in	4

<b>Total Number of Conductors:</b>	8
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### Insulation:

Material	Nominal Diameter	Nominal Wall Thickness
PO - Polyolefin	0.038 in	0.009 in

### Color Chart 1:

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

#### Outershield 1:

Material
Unshielded

#### Outerjacket 1:

Material	Nominal Diameter	Nominal Wall Thickness	Ripcord
LLPE - Linear Low Density Polyethylene	0.23 in	0.02 in	No

## Electrical Characteristics

#### Conductor DCR:

Max. Conductor DCR	Max. DCR Unbalance
9.38 Ohm/1000ft	3 %

#### Capacitance:

Max. Capacitance Unbalance	Nom.Mutual Capacitance
150 pF/ft	15 pF/ft

#### Delay:

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
538 @ 100MHz ns/100m	45 ns/100m	70 %

#### High Freq:

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]	Min. SRL (Structural Return Loss)	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2 db/100m	65.3 dB	62.3 dB	63 dB	60 dB	63.8 dB	60.8 dB	20 dB	23 dB	100 ± 15 Ohm	
4 MHz	4.1 db/100m	56.3 dB	53.3 dB	51 dB	49 dB	51.7 dB	48.7 dB	23.6 dB	23 dB	100 ± 15 Ohm	
8 MHz	5.8 db/100m	51.8 dB	48.8 dB	46 dB	43 dB	45.7 dB	42.7 dB	25.4 dB	24.5 dB	100 ± 15 Ohm	
10 MHz	6.5 db/100m	50.3 dB	47.3 dB	43 dB	41 dB	43.8 dB	40.8 dB	26 dB	25 dB	100 ± 15 Ohm	
16 MHz	8.2 db/100m	47.3 dB	44.3 dB	39 dB	36 dB	39.7 dB	36.7 dB	26 dB	25 dB	100 ± 15 Ohm	
20 MHz	9.3 db/100m	45.8 dB	42.8 dB	36.5 dB	33.5 dB	37.7 dB	34.7 dB	26 dB	25 dB	100 ± 15 Ohm	
25 MHz	10.4 db/100m	44.3 dB	41.3 dB	33.9 dB	30.9 dB	35.8 dB	32.8 dB	25.5 dB	24.3 dB	100 ± 15 Ohm	
31.25 MHz	11.7 db/100m	42.9 dB	39.9 dB	31 dB	28 dB	33.9 dB	30.9 dB	25 dB	23.6 dB	100 ± 15 Ohm	
62.5 MHz	17 db/100m	38.4 dB	35.4 dB	22 dB	19 dB	27.8 dB	24.8 dB	23.5 dB	21.5 dB	100 ± 15 Ohm	
100 MHz	22 db/100m	35.3 dB	32.3 dB	14 dB	11 dB	23.8 dB	20.8 dB	22.5 dB	20.1 dB	100 ± 15 Ohm	101 ± 6 Ohm
155 MHz	28.1 db/100m	32.5 dB	29.5 dB	4.4 dB	1.4 dB	19.9 dB	16.9 dB	15.8 dB		100 ± 25 Ohm	100 ± 15 Ohm
200 MHz	32 db/100m	30.8 dB	27.8 dB	4 dB	1 dB	17.7 dB	14.7 dB	15 dB		100 ± 25 Ohm	100 ± 15 Ohm
1 MHz											
4 MHz											
8 MHz											
10 MHz											
16 MHz											
20 MHz											
25 MHz											
31.25 MHz											
62.5 MHz											
100 MHz											
155 MHz											
200 MHz											

## Voltage:

### UL Voltage Rating

300 V RMS

## Use

Suitability - Oil Resistance:	Yes
Suitability - Burial:	Yes - Telcordia, IEC, ICEA
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Max Recommended Pulling Tension:	40 lbs
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## Safety

Suitability - Non-Halogenated:	Yes
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## Temperature Range

Installation Temp Range:	-25°C To +75 °C
Operating Temp Range:	-40°C To +75°C
Storage Temp Range:	-40°C To +85 °C

## Mechanical Characteristics

Min Bend Radius/Minor Axis:	1 in
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## Part Number

Plenum (Y/N):	No
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## Standards

ISO/IEC Compliance:	Other Standards
Telecommunications Standards:	Telecommunications Standards
CA Prop 65 (CJ for Wire & Cable):	CA Prop 65 (CJ for Wire & Cable)
MII Order #39 (China RoHS):	MII Order #39 (China RoHS)
Other Specification:	Other Specification
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	EU CE Mark

## History

Notes:	U. S. Patents 5606151 and 5734126. EtherNet IP is a trademark of ControlNet International Ltd. under license by DeviceNet Vendor Association, Inc. Operating Temperature subject to length de-rating.
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## Product Variants

Part Number	Color	Put-Up Type	Length
7934A 0101000	BLACK	Reel	1000 ft

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