



Part Number: 7938A

Cat 5e 10m Flex DataTuff®, (4 pr) 24 AWG (7x32) CA, PO/TPE/TPE, Foil+TC Braid Shld, Weldsplatter Res

Product Description

Four Cat 5e 24 AWG stranded (7x32) bare copper alloy conductors, bonded pairs, polyolefin insulation, TPE inner jacket, Beldfoil® shield (100% coverage) plus tinned copper braid (85% coverage), Weld splatter-resistant TPE jacket.

Product Specifications

Technical Specifications

Suitable Applications:	Industrial Ethernet Cable, Harsh Environments, Robotic Applications, Flexible Applications, 100MHz Category 5e, Industrial Patch Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, CMX - Outdoor, RJ-45 Compatible*
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Construction and Dimensions

Conductor:

AWG	Stranding	Material	No. of Pairs
24	7x32	CA - Copper Alloy	4

Total Number of Conductors:	8
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Insulation:

Material
PO - Polyolefin

Color Chart 1:

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

Innerjacket:

Material	Nominal Diameter	Nominal Wall Thickness
TPE	0.254 in	0.02 in

Outershield 1:

Type	Material	Material Trade Name	Coverage [%]	Nominal Diameter
Tape	Aluminum Foil-Polyester Tape	Beldfoil®	100 %	
Braid	TC - Tinned Copper		85 %	0.282 in

Outerjacket 1:

Material	Nominal Diameter	Nominal Wall Thickness	Ripcord	Separator Material
Industrial Grade TPE - Theroplastic Elastomer	0.342 in	0.03 in	No	Polyester
	0.342 in			

Electrical Characteristics

Conductor DCR:

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

Capacitance:

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

Delay:

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]	Typical Delay Skew
510 ns/100m	45 ns/100m	69 %	12 ns/ft

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	2.5 db/100m	65.3 dB	62.3 dB	62.8 dB	59.8 dB	63.8 dB	60.8 dB	20 dB	23 dB	100 ± 15 Ohm	
4 MHz	4.9 db/100m	56.3 dB	53.3 dB	51.4 dB	48.4 dB	51.7 dB	48.7 dB	23 dB	23 dB	100 ± 15 Ohm	
8 MHz	6.9 db/100m	51.8 dB	48.8 dB	44.9 dB	41.9 dB	45.7 dB	42.7 dB	24.5 dB	24.5 dB	100 ± 15 Ohm	
10 MHz	7.8 db/100m	50.3 dB	47.3 dB	42.5 dB	39.5 dB	43.8 dB	40.8 dB	25 dB	25 dB	100 ± 15 Ohm	
16 MHz	9.9 db/100m	47.3 dB	44.3 dB	37.4 dB	34.4 dB	39.7 dB	36.7 dB	25 dB	25 dB	100 ± 15 Ohm	
20 MHz	11.1 db/100m	45.8 dB	42.8 dB	34.7 dB	31.7 dB	37.7 dB	34.7 dB	25 dB	25 dB	100 ± 15 Ohm	
25 MHz	12.5 db/100m	44.3 dB	41.3 dB	21.8 dB	28.8 dB	35.8 dB	32.8 dB	24.3 dB	24.3 dB	100 ± 15 Ohm	
31.25 MHz	14.1 db/100m	42.9 dB	39.9 dB	28.8 dB	25.8 dB	33.9 dB	30.9 dB	23.6 dB	23.6 dB	100 ± 15 Ohm	
62.5 MHz	20.4 db/100m	38.4 dB	35.4 dB	18 dB	15 dB	27.8 dB	24.8 dB	21.5 dB	21.5 dB	100 ± 15 Ohm	
100 MHz	26.4 db/100m	35.3 dB	32.3 dB	8.9 dB	5.9 dB	23.8 dB	20.8 dB	20.1 dB	20.1 dB	100 ± 15 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											

Voltage:

UL Voltage Rating

300 V RMS

Use

Suitability - Oil Resistance:	Yes
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes
Max Recommended Pulling Tension:	40 lbs

Safety

C(UL) Flammability:	FT1
UL Flammability:	UL1581 Vertical Tray (VW-1)

Temperature Range

Installation Temp Range:	-25°C To +75 °C
Operating Temp Range:	-40°C To +80°C
Storage Temp Range:	-40°C To +80 °C

Mechanical Characteristics

Min Bend Radius/Minor Axis:	3.5 in
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Part Number

Plenum (Y/N):	No
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Standards

ISO/IEC Compliance:	Other 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)

History

Notes:	Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. *Special RJ45 plugs required. See WWW.BELDEN.COM - Tools - Connector Cross Reference.
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Product Variants

Part Number	Color	Put-Up Type	Length
7938A B59500	BLACK, MATTE	Reel	500 ft

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