



Part Number: 7939A

DataTuff® Cat 5e, (4 pr) 24 AWG (7x32) BC, PO/PVC, Foil Shld, CMR, CMX



Product Description

Four Cat 5e 24 AWG Bonded Pairs stranded (7x32) bare copper conductors, polyolefin insulation, Beldfoil® shield (100% coverage), industrial grade oil- and UV-resistant PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	Industrial Ethernet Cable, Harsh Environments, Flexible Applications, 200MHz 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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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	7x32	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4
AWG Size:	24

Insulation

Material
PO - Polyolefin

Color Chart

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

Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Aluminum Foil-Polyester Tape	Beldfoil®	100 %	TC - Tinned Copper	24	7x32 mm

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness	Ripcord	Separator Material
Industrial Grade PVC - Polyvinyl Chloride	0.295 in	0.03 in	No	Polyester

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
9.38 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
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510 ns/100m	45 ns/100m	69 %	12 ns/ft
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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)
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

Voltage

UL Voltage Rating
300V RMS

Temperature Range

Installation Temp Range:	-25°C To +75°C
UL Temp Rating:	60°C
Operating Temp Range:	-40°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	35 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius/Minor Axis:	0.6 in

Standards

NEC/(UL) Specification:	CMR. CMX-OUTDOOR, UL 444
CEC/C(UL) Specification:	CMG
ISO/IEC Compliance:	ISO/IEC 11801 Cat 5e Patch
CPR Euroclass:	Eca
Data Category:	Category 5e
ANSI Compliance:	ICEA 661
Telecommunications Standards:	TIA-568.C.2 Category 5e Patch, NEMA WC-63.1

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-04
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Riser
CSA Flammability:	FT4

Part Number

Plenum (Y/N):	No
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Variants

Item #	Color	Footnote
7939A 0101000	BLACK	C
7939A 0102000	BLACK	C
7939A 0061000	BLUE	C
7939A 0081000	GRAY	C
7939A 0021000	RED	C
7939A 1NH1000	TEAL	C

Footnote:	C - CRATE REEL PUT-UP.
Patent:	http://www.belden.com/p

Product Notes

Notes:	Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.
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