

7939A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable



For more Information
please call

1-800-Belden1

**General Description:**

24 AWG stranded (7x32) bare copper conductors, bonded pairs, polyolefin insulation, polyester separator, Beldfoil® shield (100% coverage), drain wire, industrial grade sunlight- and oil-resistant PVC jacket. Sequential marking at two foot intervals.

Usage (Overall)**Suitable Applications:**

Industrial Ethernet, 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

Physical Characteristics (Overall)**Conductor****AWG:**

# Pairs	AWG	Stranding	Conductor Material
4	24	7x32	BC - Bare Copper

Total Number of Conductors:

8

Insulation**Insulation Material:**

Insulation Material
PO - Polyolefin

Outer Shield**Outer Shield Material:**

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
24	7x32	TC - Tinned Copper

Outer Jacket**Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (mm)
Industrial Grade PVC - Polyvinyl Chloride	0.762

Outer Jacket Ripcord:

No

Overall Cable**Overall Cabling Separator Material:**

Polyester

Overall Nominal Diameter:

8.001 mm

Pair**Pair Color Code 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

7939A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable

Mechanical Characteristics (Overall)

Installation Temperature Range:	-25°C To +75°C
Operating Temperature Range:	-40°C To +75°C
Bulk Cable Weight:	52.087 Kg/Km
Max. Recommended Pulling Tension:	177.928 N
Min. Bend Radius/Minor Axis:	15.240 mm

Applicable Specifications and Agency Compliance (Overall)**Applicable Standards & Environmental Programs**

CEC/C(UL) Specification:	CMR
EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	11801 Category 5e Patch
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	08/23/2007
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Other Specification:	NEMA WC-63.1 Category 5e Patch, ICEA 661 Category 5 Patch, UL verified to Category 5e

Flame Test

UL Flame Test:	UL1666 Riser
CSA Flame Test:	FT4

Suitability

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

Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

Electrical Characteristics (Overall)**Nom. Mutual Capacitance:**

Capacitance (pF/m)
49.215

Maximum Capacitance Unbalance (pF/100 m):	330
-------------------------------------------	-----

Nominal Velocity of Propagation:

VP (%)
69.000

Maximum Delay:

Delay (ns/100 m)
510.000

Typical Delay Skew:

Delay Skew (ns/m)
39.372

7939A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable

Max. Delay Skew:

Delay Skew (ns/100 m)
45.000

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
9.380

Max. Operating Voltage - UL:

Voltage
300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
3.000

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)	Min. SRL (dB)
1	2.500	65.3	62.3	62.8	59.8	20.000	23.0
4	4.900	56.3	53.3	51.4	48.4	23.000	23.0
8	6.900	51.8	48.8	44.9	41.9	24.500	24.5
10	7.800	50.3	47.3	42.5	39.5	25.000	25.0
16	9.900	47.3	44.3	37.4	34.4	25.000	25.0
20	11.100	45.8	42.8	34.7	31.7	25.000	25.0
25	12.500	44.3	41.3	21.8	28.8	24.300	24.3
31.25	14.100	42.9	39.9	28.8	25.8	23.600	23.6
62.5	20.400	38.4	35.4	18.0	15.0	21.500	21.5
100	26.400	35.3	32.3	8.9	5.9	20.100	20.1

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	63.8	60.8
4	100 ± 15	100 ± 15	51.7	48.7
8	100 ± 15	100 ± 15	45.7	42.7
10	100 ± 15	100 ± 15	43.8	40.8
16	100 ± 15	100 ± 15	39.7	36.7
20	100 ± 15	100 ± 15	37.7	34.7
25	100 ± 15	100 ± 15	35.8	32.8
31.25	100 ± 15	100 ± 15	33.9	30.9
62.5	100 ± 15	100 ± 15	27.8	24.8
100	100 ± 15	100 ± 15	23.8	20.8

Notes (Overall)

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

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7939A 0021000	305 MT	18.144 KG	RED	C	4 PR #24 PP FS FRPVC
7939A 0061000	305 MT	18.144 KG	BLUE, LIGHT	C	4 PR #24 PP FS FRPVC
7939A 0081000	305 MT	18.144 KG	GRAY	C	4 PR #24 PP FS FRPVC
7939A 0101000	305 MT	18.144 KG	BLACK	C	4 PR #24 PP FS FRPVC
7939A 0102000	610 MT	36.288 KG	BLACK	C	4 PR #24 PP FS FRPVC
7939A 1NH1000	305 MT	18.144 KG	TEAL 1NH	C	4 PR #24 PP FS FRPVC

Notes:

C = CRATE REEL PUT-UP.

7939A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable

Revision Number: 2 Revision Date: 04-16-2010

© 2013 Belden, Inc.
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.