

7933A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable



For more Information
please call

1-800-Belden1

**General Description:**

24 AWG Bonded-Pairs solid bare copper conductors, polyolefin insulation, overall Beldfoil® shield (100% coverage) with drain wire, .030" industrial grade sunlight- and oil-resistant PVC jacket, drain wire. Sequential marking at two foot intervals.

Usage (Overall)**Suitable Applications:**

Industrial Ethernet, Harsh Environments, 200MHz Category 5e, M-12 Compatible, 100Base TX, 100BaseVG ANYLAN, 155A TM, 622A TM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, RJ-45 Compatible, EtherNet/IP

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

# Pairs	AWG	Stranding	Conductor Material
2	24	Solid	BC - Bare Copper

Total Number of Conductors:

4

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

Outer Shield Drain Wire AWG:

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

Outer Jacket**Outer Jacket Material:**

Outer Jacket Material
Industrial Grade PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter:

0.235 in.

Pair**Pair Color Code Chart:**

Number	Color
1	White/Orange Stripe & Orange
2	White/Green Stripe & Green

Mechanical Characteristics (Overall)

Storage Temperature Range: -40°C To +85°C

Installation Temperature Range: -25°C To +75°C

Operating Temperature Range: -40°C To +75°C

Bulk Cable Weight: 30 lbs/1000 ft.

Max. Recommended Pulling Tension: 20 lbs.

Min. Bend Radius/Minor Axis: 0.500 in.

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

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMR

7933A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable

EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
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, UL verified to Category 5e, EtherNet/IP Compliant

Applicable Patents:

Country

www.belden.com/p

Flame Test

UL Flame Test:	UL1666 Riser
CSA Flame Test:	FT4
IEEE Flame Test:	1202

Suitability

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

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)

15

Maximum Capacitance Unbalance (pF/100 m):	150
---	-----

Nominal Velocity of Propagation:

VP (%)

70

Maximum Delay:

Delay (ns/100 m)

538 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

45

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

9.38

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

3

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	2.0	65.3	62.3	63.0	60.0	20.0	23
4	4.1	56.3	53.3	51.0	49.0	23.6	23.0
8	5.8	51.8	48.8	46.0	43.0	25.4	24.5
10	6.5	50.3	47.3	43.0	41.0	26.0	25.0
16	8.2	47.3	44.3	39.0	36.0	26.0	25.0
20	9.3	45.8	42.8	36.5	33.5	26.0	25.0
25	10.4	44.3	41.3	33.9	30.9	25.5	24.3
31.25	11.7	42.9	39.9	31.0	28.0	25.0	23.6

7933A Multi-Conductor - Category 5e DataTuff® Twisted Pair Cable

62.5	17.0	38.4	35.4	22.0	19.0	23.5	21.5
100	22.0	35.3	32.3	14.0	11.0	22.5	20.1
155	28.1	32.5	29.5	4.4	1.4	15.8	
200	32.0	30.8	27.8	4.0	1.0	15.0	

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	102.5 ± 7.5	63.8	60.8
4	100 ± 15	102.5 ± 7.5	51.7	48.7
8	100 ± 15	101 ± 6	45.7	42.7
10	100 ± 15	101 ± 6	43.8	40.8
16	100 ± 15	101 ± 6	39.7	36.7
20	100 ± 15	101 ± 6	37.7	34.7
25	100 ± 15	101 ± 6	35.8	32.8
31.25	100 ± 15	101 ± 6	33.9	30.9
62.5	100 ± 15	101 ± 6	27.8	24.8
100	100 ± 15	101 ± 6	23.8	20.8
155	100 ± 25	100 ± 15	19.9	16.9
200	100 ± 25	100 ± 15	17.7	14.7

Notes (Overall)

Notes: EtherNet IP is a trademark of ControlNet International Ltd. under license by DeviceNet Vendor Association, Inc. Operating Temperature subject to length de-rating.

Notes (Cont'd.): Cable passes -40C Cold Bend per UL 1581.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7933A 0101000	1,000 FT	33.000 LB	BLACK	C	2 PR #24 PP FS FRPVC
7933A 0102000	2,000 FT	66.000 LB	BLACK	C	2 PR #24 PP FS FRPVC
7933A 1NH1000	1,000 FT	33.000 LB	TEAL 1NH	C	2 PR #24 PP FS FRPVC

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 9 Revision Date: 05-30-2014

© 2014 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Belden Wire & Cable:](#)

[7933A 0101000](#)