Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7923A 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, industrial grade sunlight- and oil-resistant PVC jacket, rip cord. Sequential marking at two foot intervals.

Usage (Overall)

Suitable Applications:

Industrial Ethernet Cable, Harsh Environments, EtherNet/IPTM, 350MHz Enhanced Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, CMX - Outdoor, RJ-45 Compatible

Physical Characteristics (Overall)

Conductor

AWG:

		AWG	Stranding	Conductor Material	Dia. (in.)
	4	24	Solid	BC - Bare Copper	.020

Total Number of Conductors:

Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)	Dia. (in.)
PO - Polyolefin	.009	.035

Outer Shield

Outer Shield Material:

Outer Shield Material Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material Industrial Grade PVC - Polyvinyl Chloride

Outer Jacket Ripcord:

Yes

0.230 in.

8

Overall Cable

Overall Nominal Diameter:

Pair

Pair Color Code Chart:

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

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:	25 lbs/1000 ft.
Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius/Minor Axis:	2.500 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR, CMX-Outdoor, UL444
CEC/C(UL) Specification:	CMR
EU Directive 2011/65/EU (ROHS II):	Yes

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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	
PMSHA Specification:	P-07-KA060003	
Other Specification:	NEMA WC-63.1 Category 5e, UL verified to Category 5e, Ethernet/IP™ Compliant	
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:



Maximum Capacitance Unbalance (pF/100 m):

66

Nominal Velocity of Propagation:

VP (%) 70

Maximum Delay:

Delay (ns/100 m) 510

Max. Delay Skew:

Delay Skew (ns/100 m) 25

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m) 9

Max. Operating Voltage - UL:

Voltage 300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

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)
1	2.0	65.3	65.3	63.3	63.3	20.0
4	4.0	56.3	56.3	52.3	52.3	23.6
8	5.7	51.8	51.8	46.1	46.1	25.4
10	6.4	50.3	50.3	43.9	43.9	26.0
16	8.1	47.3	47.3	39.1	39.1	26.0
20	9.2	45.8	45.8	35.2	35.2	26.0
25	10.3	44.3	44.3	34.1	34.1	25.5
31.25	11.6	42.9	42.9	31.3	31.3	25.0
62.5	16.8	38.4	38.4	21.6	21.6	23.5
100	21.7	35.3	35.3	17.1	17.1	22.5
155	27.7	32.5	32.5	4.7	4.7	19.0

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200	32.0	30.8	30.8	3.0	3.0	19.0
250	36.4	29.3	29.3	>0	>0	18.0
300	40.5	28.2	28.2	>0	>0	18.0
310	41.3	27.9	27.9			18.0
350	44.3	27.2	27.2			17.0

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	95-110	63.8	60.8
4	100 ± 12	95-110	51.7	48.7
8	100 ± 12	95-107	45.7	42.7
10	100 ± 12	95-107	43.8	40.8
16	100 ± 12	95-107	39.7	36.7
20	100 ± 12	95-107	37.7	34.7
25	100 ± 15	95-107	35.8	32.8
31.25	100 ± 15	95-107	33.9	30.9
62.5	100 ± 15	95-107	27.8	24.8
100	100 ± 15	95-107	23.8	20.8
155	100 ± 18	100 ± 10	19.9	16.9
200	100 ± 20	100 ± 10	17.7	14.7
250	100 ± 20	100 ± 10	15.8	12.8
300	100 ± 20	100 ± 10	14.2	11.2
310	100 ± 20	100 ± 10	13.9	10.9
350	100 ± 22	100 ± 10	12.9	9.9

Notes (Overall)

Notes: US Patent #'s 5, 606, 151; 5, 734, 126. EtherNet IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.

Notes (Cont'd.):

T568A Plug Compatible Part Number: R301603 T568B Plug Compatible Part Number: R301604

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7923A 0021000	1,000 FT	28.000 LB	RED	С	4 PR #24 PP PVC
7923A 0061000	1,000 FT	28.000 LB	BLUE, LIGHT	С	4 PR #24 PP PVC
7923A 0081000	1,000 FT	28.000 LB	GRAY	С	4 PR #24 PP PVC
7923A 0101000	1,000 FT	28.000 LB	BLACK	С	4 PR #24 PP PVC
7923A 0102000	2,000 FT	54.000 LB	BLACK	С	4 PR #24 PP PVC
7923A 1NH1000	1,000 FT	28.000 LB	TEAL 1NH	С	4 PR #24 PP PVC

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 4 Revision Date: 07-19-2016

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