

7957A Multi-Conductor - Category 5e DataTuff® 600V AWM Rated 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® (100%coverage) plus tinned copper braid shield (70% coverage), drain wire, industrial grade sunlight- and oil-resistant PVC jacket. Seq. marking at 2 ft. intervals

Usage (Overall)**Suitable Applications:**

Industrial Ethernet, Harsh Environments, Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, CMX - Outdoor, EtherNet/IP™

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

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

Total Number of Conductors:

8

Insulation**Insulation Material:**

Insulation Material
PO - Polyolefin

Outer Shield**Outer Shield Material:**

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000
2		Braid	TC - Tinned Copper	70.000

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
26	Solid	TC - Tinned Copper

Outer Jacket**Outer Jacket Material:**

Outer Jacket Material
Industrial Grade PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter:

8.382 mm

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)

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

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

Bulk Cable Weight: 74.410 Kg/Km

Max. Recommended Pulling Tension: 333.615 N

Min. Bend Radius/Minor Axis: 33.528 mm

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

CEC/C(UL) Specification:

CMR

METRIC MEASUREMENT VERSION

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AWM Specification:	UL Style 21047
EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	TIA 1005
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
MIL Order #39 (China RoHS):	Yes
Other Specification:	NEMA WC-63.1 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
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Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)

49.215

Maximum Capacitance Unbalance (pF/100 m):	150
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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	Description
300 V RMS	
600 V RMS	Appliance Wiring Material

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	20.0
4	4.1	56.3	53.3	51.0	49.0	23.6	23.6
8	5.8	51.8	48.8	46.0	43.0	25.4	25.4
10	6.5	50.3	47.3	43.0	41.0	26.0	26.0

METRIC MEASUREMENT VERSION

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16	8.2	47.3	44.3	39.0	36.0	26.0	26.0
20	9.3	45.8	42.8	36.5	33.5	26.0	26.0
25	10.4	44.3	41.3	33.9	30.9	25.5	25.5
31.25	11.7	42.9	39.9	31.0	28.0	25.0	25.0
62.5	17.0	38.4	35.4	22.0	19.0	23.5	23.5
100	22.0	35.3	32.3	14.0	11.0	22.5	22.5

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	95-110	63.8	60.8
4	100 ± 15	95-110	51.7	48.7
8	100 ± 15	95-107	45.7	42.7
10	100 ± 15	95-107	43.8	40.8
16	100 ± 15	95-107	39.7	36.7
20	100 ± 15	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

Notes (Overall)

Notes: 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. Not intended for 600 V electrical power delivery.

Notes (Cont'd.):

T568A Plug Compatible Part Number: R301601 T568B Plug Compatible Part Number: R301602

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7957A 0021000	1,000 FT	54.000 LB	RED	C	4 PR #24 PP SH PVC
7957A 0061000	1,000 FT	54.000 LB	BLUE, LIGHT		4 PR #24 PP SH PVC
7957A 0081000	1,000 FT	54.000 LB	GRAY	C	4 PR #24 PP SH PVC
7957A 0101000	1,000 FT	54.000 LB	BLACK		4 PR #24 PP SH PVC
7957A 0102000	2,000 FT	106.000 LB	BLACK		4 PR #24 PP SH PVC
7957A 1NH1000	1,000 FT	54.000 LB	TEAL 1NH		4 PR #24 PP SH PVC

Notes:

C = CRATE REEL PUT-UP.

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