

## 7953A Multi-Conductor - Category 6 DataTuff® 600V AWM Rated Cables



For more Information  
please call

1-800-Belden1



### General Description:

23 AWG solid bare copper conductors, bonded pair polypropylene insulation, FRPE spline center member, inner PVC jacket, overall Beldfoil® Shield (100% coverage), industrial grade sunlight and oil resistant DataTuff® PVC jacket, sequential footage marking every two feet.

### Usage (Overall)

**Suitable Applications:** Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, 250MHz Category 6

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

**Total Number of Conductors:** 8

#### Ground Wire

**Ground Wire (Y/N):** N

#### Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)	Dia. (in.)
PP - Polypropylene	0.010	0.043

#### Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom Wall (in.)	Nom. Dia. (in.)
PVC	0.020	0.270

**Inner Jacket Ripcord:** Yes

#### 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 Trade Name	Outer Jacket Material	Nom. Wall Thickness (in.)
Datatuff®	Industrial Grade PVC - Polyvinyl Chloride	0.030

Outer Jacket Diameter:

Nom. Dia. (in.)
0.335

**Outer Jacket Ripcord:** No

#### Overall Cable

**Overall Cabling Fillers:** X-Spline Center Member

**Overall Nominal Diameter:** 0.335 in.

#### 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

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### Mechanical Characteristics (Overall)

Storage Temperature Range:	-40°C To +80°C
Installation Temperature Range:	-25°C To +75°C
Operating Temperature Range:	-40°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	44 lbs/1000 ft.
Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius/Minor Axis:	4 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR, CMX-Outdoor
CEC/C(UL) Specification:	CMR
AWM Specification:	UL Style 21047
EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class E
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	10/09/2009
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
Telecommunications Standards:	Category 6 - TIA 568.C.2
Other Specification:	UL Verified to Category 6

#### Flame Test

UL Flame Test:	UL1666 Riser
C(UL) Flame Test:	FT4
IEEE Flame Test:	1202

#### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Aerial:	Yes
Suitability - Burial:	No
Sunlight Resistance:	Yes
Oil Resistance:	Yes

#### Plenum/Non-Plenum

Plenum (Y/N):	No
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### Surface Printing (Overall)

### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

Capacitance (pF/ft)  
15

Maximum Capacitance Unbalance (pF/100 m): 330

#### Nominal Velocity of Propagation:

VP (%)  
72

#### Maximum Delay:

Delay (ns/100 m)  
537 @ 100MHz

# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

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Max. Delay Skew:

Delay Skew (ns/100 m)
45

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
8.2

Max. Operating Voltage - UL:

Voltage	Description
300 V RMS	
600 V RMS	Appliance Wiring Material

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	2.000	74.3	72.3	72.3	70.3	21.000	na
4	3.800	65.3	63.3	61.5	59.5	24.000	na
8	5.300	60.8	58.8	55.4	53.4	25.500	na
10	6.000	59.3	57.3	53.3	51.3	26.000	na
16	7.600	56.2	54.3	48.7	46.7	26.000	na
20	8.500	54.8	52.8	46.3	44.3	26.000	na
25	9.500	53.3	51.3	43.8	41.8	25.300	na
31.25	10.700	51.9	49.9	41.2	39.2	24.600	na
62.5	15.400	47.4	45.4	32.0	30.0	22.500	na
100	19.800	44.3	42.3	24.5	22.5	21.100	na
155	25.200	41.5	39.5	16.3	14.3	19.800	na
200	29.000	39.8	37.8	10.8	8.8	19.000	na
250	32.800	38.3	36.3	5.5	3.5	18.300	na

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	67.8	64.8
4	100 ± 15	100 ± 15	55.8	52.7
8	100 ± 15	100 ± 15	49.7	46.7
10	100 ± 15	100 ± 15	47.8	44.8
16	100 ± 15	100 ± 15	43.7	40.7
20	100 ± 15	100 ± 15	41.8	38.8
25	100 ± 15	100 ± 15	39.8	36.8
31.25	100 ± 15	100 ± 15	37.9	34.9
62.5	100 ± 15	100 ± 15	31.9	28.9
100	100 ± 15	100 ± 15	27.8	24.8
155	100 ± 22	100 ± 15	23.9	20.9
200	100 ± 22	100 ± 15	21.8	18.8
250	100 ± 32	100 ± 15	19.8	16.8

### Notes (Overall)

Notes: US Patent #'s 5, 606, 151; 5, 734, 126. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Not intended for 600 V electrical power delivery.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7953A 0021000	1,000 FT	55.000 LB	RED	C	4 PR #23 PO PVC FS FRPVC
7953A 0061000	1,000 FT	55.000 LB	BLUE, LIGHT	C	4 PR #23 PO PVC FS FRPVC
7953A 0081000	1,000 FT	55.000 LB	GRAY	C	4 PR #23 PO PVC FS FRPVC
7953A 0101000	1,000 FT	55.000 LB	BLACK	C	4 PR #23 PO PVC FS FRPVC
7953A 0105000	5,000 FT	260.000 LB	BLACK	C	4 PR #23 PO PVC FS FRPVC
7953A 1NH1000	1,000 FT	55.000 LB	TEAL 1NH	C	4 PR #23 PO PVC FS FRPVC

Notes:

C = CRATE REEL PUT-UP.

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