

## 7934A Multi-Conductor - DataTuff® Waterblocked Enhanced Category 5e



For more Information  
please call

1-800-Belden1



### General Description:

24 AWG Bonded-Pairs solid bare copper conductors, polyolefin insulation, polymer gel waterblocked, sun res LLPE jacket. Sequential marking at two foot intervals.

### Usage (Overall)

**Suitable Applications:** Industrial Ethernet, Harsh Environments, 200MHz Category 5e, Gigabit Ethernet, 100Base TX, 100BaseVG ANYLAN, 155A TM, 622A TM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, RJ-45 Compatible, Burial, Halogen Free

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
4	24	Solid	BC - Bare Copper	0.508

Total Number of Conductors: 8

#### Insulation

Insulation Material:

Insulation Material	Wall Thickness (mm)	Dia. (mm)
PO - Polyolefin	0.229	0.965

#### Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)
LLPE - Linear Low Density Polyethylene	0.508

Outer Jacket Ripcord: No

#### Overall Cable

Overall Nominal Diameter: 5.842 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)

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: 44.646 Kg/Km

Max. Recommended Pulling Tension: 177.928 N

Min. Bend Radius/Minor Axis: 25.400 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II): Yes

Other Standards: ISO/IEC 11801 ed 2.1 (2008) Class D

EU CE Mark: 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):	08/02/2005
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 5e - TIA 568.C.2
Other Specification:	NEMA WC-63.1 Category 5e, UL verified to Category 5e, EtherNet/IP Compliant

**Applicable Patents:**

<b>Country</b>
www.belden.com/p

**Suitability**

Suitability - Outdoor:	Yes
Suitability - Burial:	Yes - Telcordia, IEC, ICEA
Sunlight Resistance:	Yes
Oil Resistance:	Yes
Non-halogenated:	Yes

**Plenum/Non-Plenum**

Plenum (Y/N):	No
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### Electrical Characteristics (Overall)

**Nom. Mutual Capacitance:**

<b>Capacitance (pF/m)</b>
49.215

Maximum Capacitance Unbalance (pF/100 m): 150

**Nominal Velocity of Propagation:**

<b>VP (%)</b>
70

**Maximum Delay:**

<b>Delay (ns/100 m)</b>
538 @ 100MHz

**Max. Delay Skew:**

<b>Delay Skew (ns/100 m)</b>
45

**Maximum Conductor DC Resistance:**

<b>DCR @ 20°C (Ohm/100 m)</b>
9.38

**Max. Operating Voltage - UL:**

<b>Voltage</b>
300 V RMS

**Maximum DCR Unbalanced:**

<b>DCR Unbalance @ 20°C (%)</b>
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	2.000	65.3	62.3	63.0	60.0	20.000	23.0
4	4.100	56.3	53.3	51.0	49.0	23.600	23.0
8	5.800	51.8	48.8	46.0	43.0	25.400	24.5
10	6.500	50.3	47.3	43.0	41.0	26.000	25.0
16	8.200	47.3	44.3	39.0	36.0	26.000	25.0
20	9.300	45.8	42.8	36.5	33.5	26.000	25.0
25	10.400	44.3	41.3	33.9	30.9	25.500	24.3
31.25	11.700	42.9	39.9	31.0	28.0	25.000	23.6
62.5	17.000	38.4	35.4	22.0	19.0	23.500	21.5
100	22.000	35.3	32.3	14.0	11.0	22.500	20.1

## METRIC MEASUREMENT VERSION

### 7934A Multi-Conductor - DataTuff® Waterblocked Enhanced Category 5e

155	28.100	32.5	29.5	4.4	1.4	15.800	
200	32.000	30.8	27.8	4.0	1.0	15.000	

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. Waterblocking Material: Polymer Gel. T568A Plug  
Compatible Part Number: R301603 T568B Plug Compatible Part Number: R301604

#### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7934A 0101000	1,000 FT	24.000 LB	BLACK	C	4 PR #24 PP LLDPE

**Notes:**  
C = CRATE REEL PUT-UP.

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