

## 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
4	24	Solid	BC - Bare Copper

**Total Number of Conductors:**

8

**Insulation****Insulation Material:**

Insulation Material
PO - Polyolefin

**Outer Jacket****Outer Jacket Material:**

Outer Jacket Material
LLPE - Linear Low Density Polyethylene

**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

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

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

Other Standards:	11801 Category 5
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):	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
Other Specification:	NEMA WC-63.1 Category 5e, UL verified to Category 5e, EtherNet/IP Compliant

## Suitability

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

300 V RMS

## Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

3

## Electrical Characteristics-Premise (Overall)

## Premise Cable Electrical Table 1:

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

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
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:** U. S. Patents 5606151 and 5734126. 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.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7934A 0101000	305 MT	10.886 KG	BLACK	C	4 PR #24 PP LLDPE

**Notes:**

C = CRATE REEL PUT-UP.

**Test Reports****a) UL**

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

**b) CSA**

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

\* other test data may be available if requested at time of order.

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