

## 7937A Multi-Conductor - DataTuff® Waterblocked Cate 5e Cable



For more Information  
please call

1-800-Belden1

**General Description:**

24 AWG solid bare copper conductors, twisted bonded pairs, polyolefin insulation, polymer gel waterblocked, inner LLPE jacket, overall Beldfoil shield (100% coverage), 24 AWG stranded TC drain wire, industrial grade sunlight- and oil-resistant LLPE jacket.

**Usage (Overall)****Suitable Applications:**

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

**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

**Inner Jacket****Inner Jacket Material:**

Inner Jacket Material	Nom. Dia. (mm)
LLPE - Linear Low Density Polyethylene	5.461

**Outer Shield****Outer Shield Material:**

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

**Outer Shield Drain Wire AWG:**

AWG	Stranding	Drain Wire Conductor Material
24	7x32	TC - Tinned Copper

**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:

7.010 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: 49.111 Kg/Km

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Max. Recommended Pulling Tension:	177.928 N
Min. Bend Radius/Minor Axis:	69.850 mm

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class D
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
Telecommunications Standards:	Category 5e - TIA 568.C.2
Other Specification:	NEMA WC-63.1 Category 5e

## Applicable Patents:

Country
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:

Capacitance (pF/m)
49.215

Maximum Capacitance Unbalance (pF/100 m):	330
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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:

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	23
4	4.1	56.3	53.3	51.0	49.0	23.0	23.0
8	5.8	51.8	48.8	46.0	43.0	24.5	24.5

## METRIC MEASUREMENT VERSION

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10	6.5	50.3	47.3	43.0	41.0	25.0	25.0
16	8.2	47.3	44.3	39.0	36.0	25.0	25.0
20	9.3	45.8	42.8	36.5	33.5	25.0	25.0
25	10.4	44.3	41.3	33.9	30.9	24.3	24.3
31.25	11.7	42.9	39.9	31.0	28.0	23.6	23.6
62.5	17.0	38.4	35.4	22.0	19.0	21.5	21.5
100	22.0	35.3	32.3	14.0	11.0	20.1	20.1

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	63.8	60.8
4	100 ± 15	100 ± 15	51.7	48.7
8	100 ± 15	100 ± 15	45.7	42.7
10	100 ± 15	100 ± 15	43.8	40.8
16	100 ± 15	100 ± 15	39.7	36.7
20	100 ± 15	100 ± 15	37.7	34.7
25	100 ± 15	100 ± 15	35.8	32.8
31.25	100 ± 15	100 ± 15	33.9	30.9
62.5	100 ± 15	100 ± 15	27.8	24.8
100	100 ± 15	100 ± 15	23.8	20.8

## Notes (Overall)

**Notes:** Operating temperatures are subject to length de-rating. Cable passes -40°C Cold Bend per UL 1581. Sequential marking at two foot intervals. Polymer gel waterblocking material.

**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
7937A 0101000	1,000 FT	38.000 LB	BLACK		4 PR #24 P0 GEL LLDP0 FS LLDP0

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