## **Detailed Specifications & Technical Data**

#### **ENGLISH MEASUREMENT VERSION**



#### 9903 Multi-Conductor - 10Base 5 Transceiver



For more Information please call

1-800-Belden1



#### **General Description:**

28 and 24 AWG stranded TC conductors, non-plenum, Polypropylene insulation, twisted pairs, overall polyester isolation tape + Duofoil® + TC braid shield (92% coverage), drain wire, light gray PVC jacket.

## Usage (Overall)

Suitable Applications: IEEE 802.3 Transceiver Cable

#### **Physical Characteristics (Overall)**

## Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
3	28	7x36	TC - Tinned Copper
1	24	7x32	TC - Tinned Copper

Total Number of Conductors:

#### Insulation

#### Insulation Material:

Insulation Material	Wall Thickness (in.)	AWG
PP - Polypropylene	0.009	28
PP - Polypropylene	0.010	24

### Inner Shield

#### Inner Shield Material:

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

### Inner Shield Drain Wire AWG:



Inner Shield Drain Wire Stranding:

7x32

8

Inner Shield Drain Wire Conductor Material:

TC - Tinned Copper

#### **Outer Shield**

#### Outer Shield Material:

Layer # Outer Shield Trade Name		Type Outer Shield Material		Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	TC - Tinned Copper	92

#### **Outer Jacket**

### Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.033

#### **Overall Cable**

 Overall Cabling Separator Material:
 Polyester Tape

 Overall Nominal Diameter:
 0.250 in.

### Pair

## Pair Color Code Chart:

Number	Color
78 Ohm	Gray & White
78 Ohm	Yellow & Orange
78 Ohm	Blue & Green
Power Pair	Black & Red

#### **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-20°C To +80°C		
UL Temperature Rating:	80°C (UL AWM Style 2919)		

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Bulk Cable Weight:	39 lbs/1000 π.		
Max. Recommended Pulling Tension:	68 lbs.		
Min. Bend Radius/Minor Axis:	2.500 in.		

## Applicable Specifications and Agency Compliance (Overall)

#### App

Applicable Specifications and Agency Compliance (Overall)					
Applicable Standards & Environmental Programs					
NEC/(UL) Specification:	CMG				
CEC/C(UL) Specification:	CMG				
AWM Specification:	UL Style 2919 (30 V 80°C)				
IEEE Specification:	IEEE802.3				
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):	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				
MII Order #39 (China RoHS):	Yes				
Flame Test					
CSA Flame Test:	FT4				
Plenum/Non-Plenum					

No

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Plenum (Y/N):

Impedance (Ohm)	Tolerance (Ohms)		
78	± 5		

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft) 19.7

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

Nominal Velocity of Propagation:

VP (%) 66

Nominal Delay:

Delay (ns/ft)

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)		
28 AWG	65		
24 AWG	24		

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 2.9

Max. Operating Voltage - UL:

Voltage Description 30 V RMS UL AWM Style 2919 300 V RMS CMG

Max. Recommended Current:

.875 Amps per conductor at 25°C (28 AWG); 1.5 Amps per conductor at 25°C (24 AWG)

## **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9903 E4X1000	1,000 FT	43.000 LB	GRAY, LIGHT DEC	С	1#24,3#28 SHPR PP SH PVC
9903 E4X500	500 FT	21.500 LB	GRAY, LIGHT DEC		1#24,3#28 SHPR PP SH PVC

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#### 9903 Multi-Conductor - 10Base 5 Transceiver

Notes: C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 11-07-2012

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