# **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:** 

8

### 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	Туре	Inner Shield Material	Coverage (%)	
Beldfoil® (Z-Fold®)	Tape	Aluminum Foil-Polyester Tape	100	

# Inner Shield Drain Wire AWG:



Inner Shield Drain Wire Stranding:

7x32

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®	Таре	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 ft.
Max. Recommended Pulling Tension:	68 lbs.
Min. Bend Radius/Minor Axis:	2.500 in.

# Applicable Specifications and Agency Compliance (Overall)

### App

NEO//III \ O	0110	
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	
ne Test		
CSA Flame Test:	FT4	

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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Notes: C = CRATE REEL PUT-UP.

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

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