

## 9891 Multi-Conductor - 10 Base 5 Transceiver



For more Information  
please call

1-800-Belden1

**Description:**

20 and 22 AWG stranded tinned copper conductors, foam HDPE (22 AWG) and PVC (20 AWG) insulation, twisted pairs, tinned copper braid shield (95% coverage) drain wire, PVC jacket.

**Usage (Overall)**

Suitable Applications:

IEEE 802.3 Transceiver Cable

**Physical Characteristics (Overall)****Conductor**

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
3	22	7x30	TC - Tinned Copper	0.030
1	20	7x28	TC - Tinned Copper	0.038

**Insulation**

Insulation Material:

Insulation Trade Name	Insulation Material	AWG
Datalene®	FHDPE - Foam High Density Polyethylene	22
	PVC - Polyvinyl Chloride	20

**Inner Shield**

Inner Shield Material:

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)	Stranding	Dia. (in.)	Conductor Material
78-ohm x 4	Beldfoil® (Z-Fold®)	Tape	Aluminum Foil-Polyester Tape	100			

**Outer Shield**

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	TC - Tinned Copper	95

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
22	7x30	TC - Tinned Copper

**Outer Jacket**

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

**Overall Cable**

Overall Nominal Diameter:

0.316 in.

**Pair**

Pair Color Code Chart:

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

Pair Lay Length & Direction:

Lay Length (in.)	Twists/ft. (twist/ft)
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3.000	4.000
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**Mechanical Characteristics (Overall)**

Operating Temperature Range:	-20°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2919)
Bulk Cable Weight:	70 lbs/1000 ft.
Max. Recommended Pulling Tension:	160 lbs.
Min. Bend Radius (Install)/Minor Axis:	3.500 in.

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM
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):	04/01/2005
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

**Flame Test**

UL Flame Test:	UL1685 UL Loading
CSA Flame Test:	FT1

**Plenum/Non-Plenum**

Plenum (Y/N):	No
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**Electrical Characteristics (Overall)****Nom. Characteristic Impedance:**

Description	Impedance (Ohm)	Tolerance (Ohms)
Black & White	78	± 5
Yellow & Orange	78	± 5
Blue & Green	78	± 5

**Nom. Capacitance Conductor to Conductor:**

Capacitance (pF/ft)
16.7

**Nom. Capacitance Cond. to Other Conductor & Shield:**

Capacitance (pF/ft)
29.5

**Nominal Velocity of Propagation:**

VP (%)
78

**Nominal Delay:**

Delay (ns/ft)
1.30

**Nom. Conductor DC Resistance:**

Description DCR @ 20°C (Ohm/1000 ft)	
22 AWG	14.7
20 AWG	9.5

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)
1.8

**Max. Operating Voltage - UL:**

Voltage
150 V RMS
30 V RMS (UL AWM Style 2919)

**Related Documents:**

No related documents are available for this product

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9891 006100	100 FT	7.300 LB	BLUE, LIGHT		4PR1#20,3#22 SH PVC
9891 0061000	1,000 FT	69.000 LB	BLUE, LIGHT	C	4PR1#20,3#22 SH PVC
9891 006500	500 FT	35.500 LB	BLUE, LIGHT	C	4PR1#20,3#22 SH PVC

**Notes:**

C = CRATE REEL PUT-UP.

Revision Number: 1    Revision Date: 09-23-2008

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