Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



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

Total Number of Conductors:

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Wall Thickness (in.) AW	
Datalene®	FHDPE - Foam High Density Polyethylene	0.017	22
PVC - Polyvinyl Chloride		0.012	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	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.032

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

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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:	65 lbs/1000 ft.		
Max. Recommended Pulling Tension:	160 lbs.		
Min. Bend Radius/Minor Axis:	3.250 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
ame Test	

Fla

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

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Description	Impedance (Ohm)	Tolerance (Ohms)
22AWG pairs	78.000	± 5

Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/ft)
22AWG pairs	16.700

Nom. Capacitance Cond. to Other Conductor & Shield:

Description	Capacitance (pF/ft)
22AWG pairs	29.500

Nominal Velocity of Propagation:

Description	VP (%)
22AWG pairs	78.000

Nominal Delay:

Description	Delay (ns/ft)		
22AWG pairs	1.300		

Nom. Conductor DC Resistance:

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

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Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 1.8

Max. Operating Voltage - UL:

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

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	С	4PR1#20,3#22 SH PVC
9891 006500	500 FT	35.500 LB	BLUE, LIGHT	С	4PR1#20,3#22 SH PVC

Notes:

C = CRATE REEL PUT-UP.

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