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1-800-Belden1



General 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. (mm)
3	22	7x30	TC - Tinned Copper	0.762
1	20	7x28	TC - Tinned Copper	0.9652

Total Number of Conductors: 8

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Wall Thickness (mm)	AWG
Datalene®	FHDPE - Foam High Density Polyethylene	0.432	22
	PVC - Polyvinyl Chloride	0.305	20

Inner Shield

Inner Shield Material:

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
1	Beldfoil® (Z-Fold®)	Tape (each pair)	Aluminum Foil-Polyester Tape	100.000

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 (mm)
PVC - Polyvinyl Chloride	0.813

Overall Cable

Overall Nominal Diameter: 8.026 mm

Pair

Pair Color Code Chart:

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

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2919)
Bulk Cable Weight:	96.733 Kg/Km
Max. Recommended Pulling Tension:	711.712 N
Min. Bend Radius/Minor Axis:	82.550 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CM
NEC Articles:	800
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

Suitability

Suitability - Indoor:	Yes
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

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

Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/m)
22AWG pairs	54.793

Nom. Capacitance Cond. to Other Conductor & Shield:

Description	Capacitance (pF/m)
22AWG pairs	96.790

Nominal Velocity of Propagation:

Description	VP (%)
22AWG pairs	78.000

Nominal Delay:

Description	Delay (ns/m)
22AWG pairs	4.265

METRIC MEASUREMENT VERSION

9891 Multi-Conductor - 10 Base 5 Transceiver

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)
22 AWG	48.2307
20 AWG	31.1695

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
5.9058

Max. Operating Voltage - UL:

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

Max. Recommended Current:

Description	Current
22 awg (10C Temperature Rise)	2 amps per conductor @ 25C ambient
20 awg (10C Temperature Rise)	2.5 amps per conductor @ 25C ambient

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
9891 0065000	5,000 FT	360.000 LB	BLUE, LIGHT	C Z	4PR1#20,3#22 SH PVC

Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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