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1-800-Belden1



General Description:

16 and 18 AWG stranded tinned copper conductors, XLPE insulation (power), F-R Polypropylene insulation (data), individually foil shielded (100% coverage) plus an overall tinned copper braid (65% coverage, LSZH jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
1	16	19x29	TC - Tinned Copper
1	18	19x30	TC - Tinned Copper

Total Number of Conductors: 4

Insulation

Insulation Material:

Insulation Material	AWG
XLPE- Crosslinke Polyethylene	16
FRPP - Flame Retardant Polypropylene	18

Inner Shield

Inner Shield Material:

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
16 AWG Pair	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
18 AWG Pair	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	TC - Tinned Copper	65

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
16	19x29	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)
LSZH- Low Smoke Zero Halogen	2.794

Overall Cable

Overall Nominal Diameter: 16.408 mm

Pair

Pair Color Code Chart:

Number	Color
1 (16 AWG)	Red & Black
2 (18 AWG)	Blue & White

Mechanical Characteristics (Overall)

Installation Temperature Range: -20°C To +75°C

7896T Multi-Conductor - DeviceBus® for ODVA DeviceNet™

Operating Temperature Range:	-20°C To +75°C
Bulk Cable Weight:	315.498 Kg/Km
Max. Recommended Pulling Tension:	845.158 N
Min. Bend Radius/Minor Axis:	152.400 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	TC
EU Directive 2011/65/EU (ROHS II):	Yes
IEEE Specification:	45
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):	09/16/2014
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 FT4 Loading, Limited Smoke
C(UL) Flame Test:	FT4
IEC Flame Test:	60332-3-22 (Category A)
IEEE Flame Test:	1202

Suitability

Sunlight Resistance:	Yes
Oil Resistance:	No

Plenum/Non-Plenum

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

Unaveraged Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
18 AWG Pair Only	.5			120

Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/m)
18 AWG Pair Only	1			48.2307

Nominal Velocity of Propagation:

Description	VP (%)
18 AWG Pair Only	64

Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/m)
18 AWG Pair Only				5.2496

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)
16 AWG	16.0769
18 AWG	22.6389

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

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5.9058

Max. Attenuation:

()	Description	Freq. (MHz)
0.42653	18 AWG Pair Only	.125
0.82025		.500
1.3124		1.00

Max. Operating Voltage - UL:

Voltage

600 V RMS

Max. Recommended Current:

Description	Current
15 AWG	8.0 Amps per conductor at 25°C

Notes (Overall)

Notes: Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7896T 0105000	5,000 FT	1,220.000 LB	BLACK	C	2 #16 XLPO, 2 #18 FRPO SH TPNH

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 0 Revision Date: 10-04-2014

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