Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



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



For more Information please call

1-800-Belden1



Description:

16 and 18 AWG stranded tinned copper conductors, PVC/Nylon insulation (power), F-R Polypropylene insulation (data), individually foil shielded (100% coverage) plus an overall tinned copper braid (65% coverage, sunlight/oil-resistant PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

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

Insulation

Insulation Material:

Insulation Material	
PVC/Nylon - Polyvinyl Chloride/Nylon	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®	Таре	Aluminum Foil-Polyester Tape	100

Outer Shield

Outer Shield Material:

	Outer Shield Material	• , ,	
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 (in.)	
PVC - Polyvinyl Chloride	.060	

Overall Cabling

Overall Nominal Diameter: 0.525 in.

Pair

Pair Color Code Chart:

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

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +75°C
Non-UL Temperature Rating:	75°C

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Bulk Cable Weight:	135 lbs/1000 ft.
Max. Recommended Pulling Tension:	190 lbs.
Min. Bend Radius (Install)/Minor Axis:	5 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

Applicable Stalldards & Elivirollillelital Progra	anis
NEC/(UL) Specification:	TC-ER
CSA Specification:	I/II A/B
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):	10/13/2005
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
Other Specification:	ODVA Cable V
Flame Test	
UL Flame Test:	UL1685 UL Loading
CSA Flame Test:	FT1
Suitability	
Sunlight Resistance:	Yes
Oil Resistance:	Yes

Electrical Characteristics (Overall)

Unaveraged Impedance:

Plenum/Non-Plenum Plenum (Y/N):

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

No

Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/ft)
18 AWG Pair Only	1			14.7

Nominal Velocity of Propagation:

Description	VP (%)
18 AWG Pair Only	64

Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/ft)
18 AWG Pair Only				1.6

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)
16 AWG	4.9
18 AWG	6.9

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000	ft)
1.8	

Max. Attenuation:

()	Description	Freq. (MHz)
.13	18 AWG Pair Only	.125

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.25	.500
.40	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.

Related Documents:

No related documents are available for this product

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7896A T5U1000	1,000 FT	165.000 LB	GRAY T5U	С	2 #16 PVC/NYL,2#18 FRPP SH PVC
7896A T5U2000	2,000 FT	340.000 LB	GRAY T5U	С	2 #16 PVC/NYL,2#18 FRPP SH PVC
7896A T5U500	500 FT	89.000 LB	GRAY T5U	С	2 #16 PVC/NYL,2#18 FRPP SH PVC

Notes:

C = CRATE REEL PUT-UP.

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