Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7897A Multi-Conductor - DeviceBus® for ODVA DeviceNet™



For more Information please call

1-800-Belden1



Description:

15 and 18 AWG stranded tinned copper conductors, PVC/Nylon insulation (power), FEP 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	15	19x28	TC - Tinned Copper
1	18	19x30	TC - Tinned Copper

Insulation

Insulation Material:

Insulation Material	AWG
PVC/Nylon - Polyvinyl Chloride/Nylon	15
FEP - Fluorinated Ethylene Propylene	18

Inner Shield

Inner Shield Material:

Layer #	Туре	Inner Shield Material	Coverage (%)
15 AWG Pair	Tape	Aluminum Foil-Polyester Tape	100
18 AWG Pair	Tape	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
18	19x30	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.060

Overall Cabling

Overall Nominal Diameter: 0.460 in.

Pair

Pair Color Code Chart:

Number	Color
15 AWG Pair	
18 AWG Pair	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: 4.400 in.

Applicable Specifications and Agency Compliance (Overall)

oplicable Standards & Environmental Programs			
NEC/(UL) Specification:	TC-ER		
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):	04/01/05		
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 Class 1 Thick		
ame Test			
UL Flame Test:	UL1685 UL Loading		
itability			
Sunlight Posistance:	Voc		

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Sunlight Resistance: Yes Oil Resistance: Yes

Plenum/Non-Plenum

Plenum (Y/N): No

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/ft)
18 AWG Pair Only	1			12.0

Nominal Velocity of Propagation:

Description	VP (%)
18 AWG Pair Only	75	

Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/ft)
18 AWG Pair Only				1.36

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)
15 AWG	3.6
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
.25		.500
.40		1.0

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Max. Operating Voltage - UL:

600 V RMS

Max. Recommended Current:

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

Notes (Overall)

Notes: High Velocity. Thick. Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark. Jacket printed "1PR16" instead of "1PR15" due to UL requirements for CMG Listing.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7897A T5U1000	1,000 FT	135.000 LB	GRAY T5U	С	2 #15 PVC/NYL,2#18 FFEP SH PVC
7897A T5U2000	2,000 FT	274.000 LB	GRAY T5U	С	2 #15 PVC/NYL,2#18 FFEP SH PVC
7897A T5U500	500 FT	69.500 LB	GRAY T5U	С	2 #15 PVC/NYL,2#18 FFEP SH PVC

C = CRATE REEL PUT-UP.

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