# **Detailed Specifications & Technical Data**

**METRIC 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	<b>Conductor Material</b>
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 # Type		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	<b>Drain Wire Conductor Material</b>
18	19x30	TC - Tinned Copper

#### **Outer Jacket**

#### **Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	1.524

# **Overall Cabling**

Overall Nominal Diameter: 11.684 mm

#### **Pair**

#### **Pair Color Code Chart:**

Number	Color
15 AWG Pair	Red & Black
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:	200.907 Kg/Km
Max. Recommended Pulling Tension:	845.158 N
Min. Bend Radius (Install)/Minor Axis:	111.760 mm

# **Applicable Specifications and Agency Compliance (Overall)**

# Ap

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			
uitability				
Sunlight Resistance:	Yes			

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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/m)
18 AWG Pair Only	1			39.372

# Nominal Velocity of Propagation:

Description	VP (%)
18 AWG Pair Only	75

# Maximum Delay:

Desc	cription	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/m)
18 A	WG Pair Only				4.46216

## Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)
15 AWG	11.8116
18 AWG	22.6389

## **Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/km)	
5.9058	

#### Max. Attenuation:

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()	Description	Freq. (MHz)
0.42653	18 AWG Pair Only	.125
0.82025		.500
1.3124		1.0

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#### Max. Operating Voltage - UL:

Voltage 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.

#### **Related Documents:**

No related documents are available for this product

#### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7897A T5U1000	305 MT	61.235 KG	GRAY T5U	С	2 #15 PVC/NYL,2#18 FFEP SH PVC
7897A T5U2000	610 MT	124.285 KG	GRAY T5U	С	2 #15 PVC/NYL,2#18 FFEP SH PVC
7897A T5U500	152 MT	31.525 KG	GRAY T5U	С	2 #15 PVC/NYL,2#18 FFEP SH PVC

#### Notes:

C = CRATE REEL PUT-UP.

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