## **Detailed Specifications & Technical Data**

#### **ENGLISH MEASUREMENT VERSION**



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



For more Information please call

1-800-Belden1



#### **General 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:

I	# Pairs	AWG	Stranding	Conductor Material
l	1	15	19x28	TC - Tinned Copper
l	1	18	19x30	TC - Tinned Copper

Total Number of Conductors:

4

#### 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 Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
18	19x30	TC - Tinned Copper

## **Outer Jacket**

Outer Jacket Material:

Out	er Jacket Material	Nom. Wall Thickness (in.)
PV	C - Polyvinyl Chloride	.060

#### **Overall Cable**

Overall Nominal Diameter: 0.460 in

#### 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
Bulk Cable Weight:	135 lbs/1000 ft.
Max. Recommended Pulling Tension:	190 lbs.
Min. Bend Radius/Minor Axis:	4.400 in.

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

**Applicable Standards & Environmental Programs** 

NEC/(UL) Specification: TC-ER

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

EU Directive 2011/65/EU (ROHS II):	Yes
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
Flame Test	
UL Flame Test:	UL1685 UL Loading
Suitability	
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:

0	Description	Freq. (MHz)
.13	18 AWG Pair Only	.125
.25		.500
.40		1.0

## Max. Operating Voltage - UL:

Voltage
600 V RMS (NEC Type TC)

#### Max. Recommended Current:

Description	
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	144.000 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

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Notes: C = CRATE REEL PUT-UP.

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