



Product: [7897A](#)

DeviceBus®, 2 Pr #15+18 Str TC, PVC-NYL&FEP Ins, IS+OA TC Brd, PVC Jkt, 600V TC-ER

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Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 15+18AWG (19x28+19x30) Tinned Copper, PVC-NYL&FEP Insulation, Individual Beldfoil® & OA Tinned Copper Braid(65%) Shield, PVC Outer Jacket, 600V TC-ER

Technical Specifications

Product Overview

Suitable Applications:	harsh environment, ODVA device-level communication, used with CIP (common Industrial Protocol) for control, configuration, and data collection between devices, such as sensors and actuators, and higher level devices such as PLC, and PC in industrial automation, bus topology, etc.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
15	19x27	TC - Tinned Copper	1
18	19x30	TC - Tinned Copper	1

Conductor Count:	4
Total Number of Pairs:	2

Insulation

Element	Material
15	PVC/Nylon - Polyvinyl Chloride/Nylon Skin
18	FEP - Fluorinated Ethylene Propylene

Color Chart

Number	Color
15 AWG Pair	Red & Black
18 AWG Pair	Blue & White

Inner Shield Material

Type	Layer	Material	Coverage [%]
Tape	15 AWG Pair	Alum / Poly	100 %
Tape	18 AWG Pair	Alum / Poly	100 %

Outer Shield Material

Type	Material	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Braid	TC - Tinned Copper	65 %	TC - Tinned Copper	18	19x30

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.46 in	0.06 in

Electrical Characteristics

Conductor DCR

Element	Nominal Conductor DCR	Nominal Outer Shield DCR
15 AWG	3.6 Ohm/1000ft	1.8 Ohm/1000ft

18 AWG	6.9 Ohm/1000ft	
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Capacitance

Element	Nom. Capacitance Conductor to Conductor
18 AWG Pair Only	12 pF/ft

Impedance

Nominal Characteristic Impedance
120 Ohm

Delay

Max. Delay	Max. Delay Description	Nominal Velocity of Propagation (VP) [%]	Nominal Velocity of Propagation (VP) Description
1.36 ns/ft	18 AWG Pair Only	75 %	18 AWG Pair Only

High Freq

Element	Frequency [MHz]	Max./Min. Input Impedance (unFitted)
18 AWG Pair Only	0.125 MHz	120 Ohm
	0.5 MHz	

Current

Element	Max. Recommended Current [A]
15 AWG	8.0 Amps per conductor @ 25°C

Temperature Range

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

Mechanical Characteristics

Oil Resistance:	Yes
Bulk Cable Weight:	135 lbs/1000ft
Max Recommended Pulling Tension:	190 lbs
Min Bend Radius/Minor Axis:	4.4 in

Standards

NEC/(UL) Specification:	TC-ER
Other Standards:	ODVA Class 1 Thick

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-04-01
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Oil Resistance:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 UL Loading
UL voltage rating:	600 V RMS (NEC Type TC)

Plenum/Non-Plenum

Plenum (Y/N):

No

Part Number

Variants

Item #	Color	Putup Type	Length	UPC
7897A T5U500	Gray T5U	Reel	500 ft	612825190899
7897A T5U1000	Gray T5U	Reel	1,000 ft	612825190875
7897A T5U2000	Gray T5U	Reel	2,000 ft	612825190882

Footnote:

C - CRATE REEL PUT-UP.

Product Notes

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.

History

Update and Revision:

Revision Number: 0.332 Revision Date: 04-28-2020

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