

Product: 7897A

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

Request Sample

Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 15+18AWG (19x27+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.

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Power Pair(s)	1	15 AWG	19x27	TC - Tinned Copper
Data Pair(s)	1	18 AWG	19x30	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Power Pair(s)	PVC/Nylon - Polyvinyl Chloride + Nylon	0.021 in (0.53 mm)	0.109 in (2.77 mm)	Red & Black
Data Pair(s)	FEP - Fluorinated Ethylene Propylene (Foam)	0.050 in (1.3 mm)	0.146 in (3.71 mm)	Blue & White

Inner Shield

Element	Shield Type	Material	Coverage
Power Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%
Data Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Braid	Tinned Copper (TC)	65%	18 AWG (19x30) TC

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.060 in (1.5 mm)	0.460 in (11.7 mm)

Table Notes:	Jacket OD +/- 0.015
Overall Cable Diameter (Nominal):	0.460 in (11.7 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Power Pair(s)	3.6 Ohm/1000ft				8 Amps per Conductor at 25ºC
Data Pair(s)	6.9 Ohm/1000ft (23 Ohm/km)	12 pF/ft (39 pF/m)	120 Ohm	75%	

Nom. Outer Shield DCR:	1.8 Ohm/1000ft (5.9 Ohm/km)

High Frequency

Element	Frequency [MHz]	Max. Insertion Loss (Attenuation)	Max./Min. Input Impedance (unFitted) [Ohm]
Data Pair(s)	0.125	0.13 dB/100ft	120
	0.5	0.25 dB/100ft	
	1	0.40 dB/100ft	

Voltage

UL Voltage Rating
600 V (TC-ER)

Mechanical Characteristics

Temperature

UL Temperature	Operating
75°C Dry	-20°C to +75°C

Bend Radius

Stationary Min.	Installation Min.
4.4 in (110 mm)	4.4 in (110 mm)

Max. Pull Tension:	190 lbs (86 kg)
Bulk Cable Weight:	125 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1685 UL Loading
NEC / UL Compliance:	Article 336, TC-ER
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
Other Standard Compliance(s):	ODVA Class 1 Thick

Product Notes

Notes:	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: 0.576 Revision Date: 12-22-2023

Part Numbers

Variants

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

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