



Product: [7896A](#) 

DeviceBus®, 2 Pr #16+18 Str TC, PVC-NYL+PP Ins, IS+OA TC Brd, PVC Jkt, 600V TC-ER

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Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 16+18AWG (19x29+19x30) Tinned Copper, PVC-NYL+PP 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	Number of Element	AWG	Stranding	Material
Power Pair(s)	1	16	19x29	TC - Tinned Copper
Data Pair(s)	1	18	19x30	TC - Tinned Copper

Insulation

Element	Material	Thickness	Nom. Insulation Diameter	Color Code	Notes
Power Pair(s)	PVC/Nylon - Polyvinyl Chloride + Nylon	0.022 in	0.101	Red & Black	
Data Pair(s)	PP - Polypropylene	0.068 in	0.182	Blue & White	Flame Retardant

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%	16 AWG (19x29) TC

Outer Jacket

Material	Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.060 in	0.525 in

Cable Diameter (Nominal): 0.525 in

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Characteristic Impedance	Nom. Velocity of Prop.	Max. Current
Power Pair(s)	4.9 Ohm/1000ft				8 Amps per Conductor at 25°C
Data Pair(s)	6.9 Ohm/1000ft	14.7 pF/ft	120 Ohm	75%	

Nom. Outer Shield DCR: 1.8 Ohm/1000ft

High Frequency

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

Voltage

UL Voltage Rating
600 V (TC-ER)

Mechanical Characteristics

Temperature

UL Rating	Operating	Installation
75°C Dry	-40°C to +75°C	-25°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
5 in	5 in

Max. Pull Tension:	190 lbs
Bulk Cable Weight:	135 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Sunlight Resistance, Oil Resistance
Flammability / Fire Resistance:	UL1685 UL Loading, FT1
NEC / UL Compliance:	Article 336, TC-ER
AWM Compliance:	I/II A/B
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)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	ODVA Cable V

Product Notes

Notes:	Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark.
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History

Update and Revision:	Revision Number: 0.394 Revision Date: 05-26-2021
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