



Product: [7900A](#)

DeviceBus®, 2 Pr #16+18 Str TC, PVC-NYL+PO Ins, PVC Jkt, 600V TC-ER

[Request Sample](#)

Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 16+18AWG (19x29+19x30) Tinned Copper, PVC-NYL+PO Insulation, 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.
------------------------	--

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
16	19x29	TC - Tinned Copper	1
18	19x30	TC - Tinned Copper	1

Conductor Count:	4
------------------	---

Insulation

Element	Material	Nominal Diameter
16 AWG	PVC/Nylon - Polyvinyl Chloride + Nylon	0.101 in
18 AWG	PP - Polypropylene	0.098 in

Color Chart

Number	Color
1 (16 AWG)	Red & Black
2 (18 AWG)	Blue & White

Outer Shield

Material
No Shield

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness	Separator Material
PVC - Polyvinyl Chloride	0.43 in	0.075 in	Polyester Tape

Electrical Characteristics

Conductor DCR

Element	Nominal Conductor DCR	Nominal Outer Shield DCR
16 AWG	4.9 Ohm/1000ft	1.8 Ohm/1000ft
18 AWG	6.9 Ohm/1000ft	

Capacitance

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

Impedance

Nominal Characteristic Impedance
100 Ohm
120 Ohm

Delay

Max. Delay	Max. Delay Description	Nominal Delay	Nominal Velocity of Propagation (VP) [%]	Nominal Velocity of Propagation (VP) Description
1.6 ns/ft	18 AWG Pair Only			18 AWG Pair Only
		1.6 ns/ft	64%	

High Frequency

Element	Frequency [MHz]	Max./Min. Fitted Impedance
18 AWG Pair Only	0.125 MHz	120 Ohm
	0.5 MHz	

Current

Element	Max. Recommended Current [A]
15 AWG	8 Amps per Conductor

Voltage

UL Voltage Rating
600 V RMS

Temperature Range

UL Temp Rating:	75°C
Operating Temperature Range:	-20°C to +75°C

Mechanical Characteristics

Bulk Cable Weight:	100 lbs/1000ft
Max. Pull Tension:	110 lbs
Min. Bend Radius/Minor Axis:	4.3 in

Standards

NEC Articles:	Article 336
NEC/(UL) Compliance:	TC-ER
CSA AWM Compliance:	AWM I/II A/B
Other Specification:	ODVA Cable IV

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

Suitability

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

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
UL voltage rating:	600 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
7900A T5U500	Gray T5U	Reel	500 ft	612825190912
7900A T5U1000	Gray T5U	Reel	1,000 ft	612825190905

Footnote: C - CRATE REEL PUT-UP.

Product Notes

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

History

Update and Revision: Revision Number: 0.403 Revision Date: 05-05-2023

© 2023 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.