



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 | | TC - Tinned Copper | 1 |

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

Insulation

| Material | Nominal Diameter |
|--|------------------|
| PVC/Nylon - Polyvinyl Chloride + Nylon | 0.101 in |
| PP - Polypropylene | 0.098 in |

Color Chart

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

Outer Shield Material

| Material |
|-----------|
| No Shield |

Outer Jacket Material

| 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 |
| | 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) Description |
|------------|------------------------|---------------|--|
| 1.6 ns/ft | 18 AWG Pair Only | | 18 AWG Pair Only |
| | | 1.6 ns/ft | |

High Freq

| 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 Temp 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 Compliance: | ODVA Cable IV |

Applicable Environmental and Other Programs

| | |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV): | 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): | 2005-10-13 |
| MII Order #39 (China RoHS): | Yes |

Suitability

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

Flammability, LSOH, Toxicity Testing

| | |
|--------------------|-------------------|
| UL Flammability: | UL1685 UL Loading |
| CSA Flammability: | FT1 |
| UL voltage rating: | 600 V RMS |

Plenum/Non-Plenum

Plenum (Y/N): No

Part Number

Variants

| Item # | Color | Putup 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: 0.325 Revision Date: 02-16-2021

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