



Product: [7896T](#)

DeviceBus®, 2 Pr #16+18 Str TC, XLPe+PP Ins, IS+OA TC Brd, LSZH Jkt, 600V TC-ER-ST1

Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 16+18AWG (19x29+19x30) Tinned Copper, XLPE+ PP Insulation, Individual Beldfoil® & OA Tinned Copper Braid(65%) Shield, LSZH Outer Jacket, 600V TC-ER-ST1

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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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Power Pair(s)	1	16 AWG	19x29	TC - Tinned Copper
Data Pair(s)	1	18 AWG	19x30	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Color Code	Notes
Power Pair(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.031 in (0.79 mm)	Red & Black	
Data Pair(s)	PP - Polypropylene	0.068 in (1.7 mm)	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	Nom. Thickness	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.115 in (2.92 mm)	0.646 in (16.4 mm)

Overall Cable Diameter (Nominal):	0.646 in (16.4 mm)
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Electrical Characteristics

Electricals

Element	Nom. Characteristic Impedence	Nom. Velocity of Prop.
Power Pair(s)		
Data Pair(s)	120 Ohm	75%

High Frequency

Element
Data Pair(s)

Voltage

UL Voltage Rating
600 V (TC-ER-ST1)

Mechanical Characteristics

Temperature

UL Temperature
75°C Dry

Standards and Compliance

Environmental Suitability:	Outdoor, Sunlight Resistance, Burial
Flammability / Reaction to Fire:	UL1685 UL Loading
NEC / UL Compliance:	Article 336, TC-ER-ST1
European Directive Compliance:	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)

History

Update and Revision:	Revision Number: 0.362 Revision Date: 12-22-2023
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Part Numbers

Variants

Item #	Color	UPC	Footnote
7896T 0105000	Black	612825190851	C

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