



Product: [3083A](#)

DeviceBus®, 2 Pr #15+18 Str TC, PVC+FPE Ins, IS+OA TC Brd, CPE Jkt, CMG PLTC

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Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 15+18AWG (19x27+19x30) Tinned Copper, PVC+Foam PE Insulation, Individual Beldfoil® & OA Tinned Copper Braid(65%) Shield, CPE Outer Jacket, CMG PLTC

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	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	Notes
Power Pair(s)	PVC - Polyvinyl Chloride	0.021 in (0.53 mm)	0.109 in (2.77 mm)	Red & Black	
Data Pair(s)	PE - Polyethylene (Foam)	0.053 in (1.3 mm)	0.150 in (3.81 mm)	Blue & White	HDPE

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
CPE - Chlorinated Polyethylene	0.058 in (1.5 mm)	0.476 in (12.1 mm)

Table Notes:	Jacket OD +/- 0.015
Overall Cable Diameter (Nominal):	0.476 in (12.1 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Inner Shield DCR	Nom. Capacitance Cond-to-Cond	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Power Pair(s)	3.58 Ohm/1000ft	5.75 Ohm/1000ft (18.9 Ohm/km)				24 Amps per Conductor at 30°C
Data Pair(s)	7.2 Ohm/1000ft (24 Ohm/km)	3.58 Ohm/1000ft (11.7 Ohm/km)	12 pF/ft (39 pF/m)	120 Ohm	75%	14 Amps per Conductor at 30°C
Nom. Outer Shield DCR:	7.29 Ohm/1000ft (23.9 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	0.36 dB/100ft	

Voltage

UL Voltage Rating
300 V (CMG, PLTC-ER)

Mechanical Characteristics

Temperature

UL Temperature	Operating
105°C	-20°C to +105°C

Bend Radius

Stationary Min.	Installation Min.
5.712 in (145.1 mm)	5.712 in (145.1 mm)

Max. Pull Tension:	192.6 lbs (87.36 kg)
Bulk Cable Weight:	127 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Burial
Flammability / Reaction to Fire:	UL 1685 FT4 Loading, IEEE 1202 FT4
CPR Compliance:	CPR Euroclass: Fca
NEC / UL Compliance:	Article 725, Article 800, CMG, PLTC
CEC / C(UL) Compliance:	CMG
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 Class 2 Thick

Product Notes

Notes:	Thick. 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.
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History

Update and Revision:	Revision Number: 0.561 Revision Date: 04-30-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
3083A 5601000	Yellow, Bright	Reel	1,000 ft	612825140856	C
3083A 5602000	Yellow, Bright	Reel	2,000 ft	612825140863	C

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