



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. |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Construction Details

Conductor

| Element       | Number of Element | 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, 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. |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.525 Revision Date: 04-14-2023 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

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

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