

# Product: 3084A

DeviceBus®, 2 Pr #22+24 Str TC, PVC+FPE Ins, IS+OA TC Brd, PVC Jkt, CMG, CL2

Request Sample

## Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 22+24AWG (19x34+19x36) Tinned Copper, PVC+Foam PE Insulation, Individual Beldfoil® & OA Tinned Copper Braid(65%) Shield, PVC Outer Jacket, CMG, CL2

## 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 | No. of Elements | Size | Stranding | Material |
|---|---|---|---|---|
| Power Pair(s) | 1 | 22 AWG | 19x34 | TC - Tinned Copper |
| Data Pair(s) | 1 | 24 AWG | 19x36 | TC - Tinned Copper |

**Insulation**

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code |
|---|---|---|---|---|
| Power Pair(s) | PVC - Polyvinyl Chloride | 0.021 in (0.53 mm) | 0.072 in (1.8 mm) | Red & Black |
| Data Pair(s) | PE - Polyethylene (Foam) | 0.026 in (0.66 mm) | 0.077 in (2.0 mm) | Blue & White |

**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% | 22 AWG (19x34) TC |

**Outer Jacket**

| Material | Nom. Thickness | Nom. Diameter |
|---|---|---|
| PVC - Polyvinyl Chloride | 0.032 in (0.81 mm) | 0.280 in (7.11 mm) |

| | |
|---|---|
| Table Notes: | Jacket OD +/- 0.005 |
| Overall Cable Diameter (Nominal): | 0.280 in (7.11 mm) |

### Electrical Characteristics

**Electricals**

| Element | Nom. Conductor DCR | Max. Conductor DCR | Nom. Inner Shield DCR | Nom. Capacitance Cond-to-Cond | Nom. Characteristic Impedence | Nom. Velocity of Prop. | Max. Current |
|---|---|---|---|---|---|---|---|
| Power Pair(s) | 18.2 Ohm/1000ft | 17.5 Ohm/1000ft | 7.95 Ohm/1000ft (26.1 Ohm/km) | | | | 6 Amps per Conductor at 30ºC |
| Data Pair(s) | 28.8 Ohm/1000ft (94.5 Ohm/km) | 28 Ohm/100m | 7.45 Ohm/1000ft (24.4 Ohm/km) | 12 pF/ft (39 pF/m) | 120 Ohm | 75% | 4 Amps per Conductor at 30ºC |

| | |
|---|---|
| Nom. Outer Shield DCR: | 5 Ohm/1000ft (16 Ohm/km) |

**High Frequency**

| Element | Frequency [MHz] | Max. Insertion Loss (Attenuation) |
|---|---|---|
| Data Pair(s) | 0.125 | .95 dB/100ft |
| | 0.5 | 1.64 dB/100ft |
| | 1 | 2.3 dB/100ft |

**Voltage**

| UL Voltage Rating | Voltage Rating |
|---|---|
| 300 V (CMG, CL2), 600 V (AWM 20201) | 300 V (AWM I/II A) |

## Mechanical Characteristics

**Temperature**

| UL Temperature | Operating |
|---|---|
| 60°C | -20°C to +60°C |

**Bend Radius**

| Stationary Min. | Installation Min. |
|---|---|
| 2.8 in (71 mm) | 2.8 in (71 mm) |

| | |
|---|---|
| Max. Pull Tension: | 70.06 lbs (31.78 kg) |
| Bulk Cable Weight: | 44 lbs/1000ft |

## Standards and Compliance

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|---|---|
| Environmental Suitability: | Indoor, Outdoor, Sunlight Resistance, Oil Resistance |
| Flammability / Reaction to Fire: | UL 1685 UL Loading, IEEE 1202 FT4, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca; CPR UKCA Class: Eca |
| NEC / UL Compliance: | Article 725, Article 800, CL2, CMG |
| AWM Compliance: | AWM 20201, AWM I/II A |
| 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) |
| UK Regulation Compliance: | UKCA Mark |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Other Standard Compliance(s): | ODVA Class 2 Thin |

## Product Notes

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|---|---|
| Notes: | Flex Life: +/- 90 Degree Flex Test, 2" Diameter, 2 lbs. tension: 2000 Cycles minimum. Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark. |

## History

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| Update and Revision: | Revision Number: 0.608 Revision Date: 12-22-2023 |

## Part Numbers

**Variants**

| Item # | Color | Putup Type | Length | UPC | Footnote |
|---|---|---|---|---|---|
| 3084A T5U500 | Gray T5U | Reel | 500 ft | 612825140900 | C |
| 3084A T5U1000 | Gray T5U | Reel | 1,000 ft | 612825140887 | C |
| 3084A T5U2000 | Gray T5U | Reel | 2,000 ft | 612825140894 | C Z |
| 3084A T5U5000 | Gray T5U | Reel | 5,000 ft | 612825140917 | C |

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