



Product: <u>3084F</u> ☑

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

Product Description

DeviceBus® for ODVA DeviceNet™, 2 Pair 22+24AWG (154x44+105x44) Tinned Copper, PVC+Foam PE Insulation, Individual Beldfoil® & OA Tinned Copper Braid(65%) Shield, PVC Outer Jacket, High Flex, CMG, CL2

Technical Specifications

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.

Conductor

| Element | Number of Element | AWG | Stranding | Material |
|---------------|-------------------|-----|-----------|--------------------|
| Power Pair(s) | 1 | 22 | 154x44 | TC - Tinned Copper |
| Data Pair(s) | 1 | 24 | 105x44 | TC - Tinned Copper |

Insulation

| Element | Material | Thickness | Color Code |
|---------------|--------------------------|-----------|--------------|
| Power Pair(s) | PVC - Polyvinyl Chloride | 0.016 in | Red & Black |
| Data Pair(s) | PE - Polyethylene (Foam) | 0.026 in | Blue & White |

Inner Shield Material

| Element | Shield Type | Material | Coverage |
|---------------|-------------|-------------------------|----------|
| Power Pair(s) | Таре | Bi-Laminate (Alum+Poly) | 100% |
| Data Pair(s) | Таре | Bi-Laminate (Alum+Poly) | 100% |

Outer Shield Material

| Shield Type | Material | Coverage | Drainwire Type |
|-------------|--------------------|----------|-------------------|
| Braid | Tinned Copper (TC) | 65% | 22 AWG (26x36) TC |

Outer Jacket Material

| Material | Thickness | Nom. Diameter |
|--------------------------|-----------|---------------|
| PVC - Polyvinyl Chloride | 0.036 in | 0.275 in |
| 0.11.5: | | |

Cable Diameter (Nominal): 0.275 in

Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Characteristic Impedence | Nom. Velocity of Prop. | Max. Current |
|---------------|---------------------|-------------------------------|--------------------------|------------------------|---|
| Power Pair(s) | 17.5 Ohm/1000ft | | | | 4 Amps Per Conductor at 24 V (per NEC CL2) (Power Pair) |
| Data Pair(s) | | 12.0 pF/ft | 120 Ohm | 75% | 4 Amps Per Conductor at 24 V (per NEC CL2) (Power Pair) |
| Nom Outer Sh | nield 3.2 Ohm/1000f | t | | | |

DCR:

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

Voltage

UL Voltage Rating

300 V (CMG)

Temperature

| UL Rating | Operating |
|-----------|----------------|
| 75°C | -20°C to +75°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 2.75 in | 2.75 in |

| Max. Pull Tension: | 65 lbs |
|---------------------------------|--|
| Bulk Cable Weight: | 41 lbs/1000ft |
| Environmental Suitability: | Indoor, Sunlight Resistance, Oil Resistance |
| Flammability / Fire Resistance: | UL1685 FT4 Loading, FT4, 1202 |
| NEC / UL Compliance: | Article 725, Article 800, CL2, CMG |
| AWM Compliance: | I/II A |
| CEC / C(UL) Compliance: | CMG |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Other Standard Compliance(s): | ODVA Class 2 Thin |
| Notes: | Hi-Flex. Thin. Flex Test Results: "S-Bend" Flex Test - 4" Diameter Wheels, 2 lbs. tension: 150, 000 Cycles Averaged. +/-90 Degree Flex Test: 2"" Diameter, 2 lbs. tension - 8500 Cycles Averaged. Flex tests were conducted at less than the recommeded cable minimum bend radius. Actual cable performance will depend on the individual application. Meter marks on jacket to aid users in installation. |
| Update and Revision: | Revision Number: 0.396 Revision Date: 09-30-2020 |

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