



For more Information  
please call

1-800-Belden1



### General Description:

22 and 24 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (Data), individually foil shielded (100% coverage) and an overall tinned copper braid (65% coverage), sunlight/oil-resistant PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

| # Conductors | # Pairs | AWG | Stranding | Conductor Material |
|--------------|---------|-----|-----------|--------------------|
| 4            | 1       | 22  | 19x34     | TC - Tinned Copper |
|              | 1       | 24  | 19x36     | TC - Tinned Copper |

#### Insulation

##### Insulation Material:

| Insulation Material      | AWG |
|--------------------------|-----|
| PVC - Polyvinyl Chloride | 22  |
| FPE - Foam Polyethylene  | 24  |

#### Inner Shield

##### Inner Shield Material:

| Layer #     | Type | Inner Shield Material        | Coverage (%) |
|-------------|------|------------------------------|--------------|
| 22 AWG Pair | Tape | Aluminum Foil-Polyester Tape | 100          |
| 24 AWG Pair | Tape | Aluminum Foil-Polyester Tape | 100          |

#### Outer Shield

##### Outer Shield Material:

| Type  | Outer Shield Material | Coverage (%) |
|-------|-----------------------|--------------|
| Braid | TC - Tinned Copper    | 65           |

##### Outer Shield Drain Wire AWG:

| AWG | Stranding | Drain Wire Conductor Material |
|-----|-----------|-------------------------------|
| 22  | 19x34     | TC - Tinned Copper            |

#### Outer Jacket

##### Outer Jacket Material:

| Outer Jacket Material    | Nom. Wall Thickness (mm) |
|--------------------------|--------------------------|
| PVC - Polyvinyl Chloride | 0.813                    |

#### Overall Cable

Overall Nominal Diameter: 7.112 mm

#### Pair

##### Pair Color Code Chart:

| Number      | Color        |
|-------------|--------------|
| 22 AWG Pair | Red & Black  |
| 24 AWG Pair | Blue & White |

### Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

UL Temperature Rating: 75°C

## 3084A Multi-Conductor - DeviceBus® for ODVA DeviceNet™

|  |              |
|--|--------------|
| <b>Bulk Cable Weight:</b>                | 61.016 Kg/Km |
| <b>Max. Recommended Pulling Tension:</b> | 289.133 N    |
| <b>Min. Bend Radius/Minor Axis:</b>      | 69.850 mm    |

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

|  |                             |
|--|-----------------------------|
| <b>NEC/(UL) Specification:</b>               | CL2, CMG                    |
| <b>CEC/C(UL) Specification:</b>              | CMG                         |
| <b>AWM Specification:</b>                    | UL Style 20201 (600 V 75°C) |
| <b>EU Directive 2011/65/EU (ROHS II):</b>    | Yes                         |
| <b>EU CE Mark:</b>                           | Yes                         |
| <b>EU Directive 2000/53/EC (ELV):</b>        | Yes                         |
| <b>EU Directive 2002/95/EC (RoHS):</b>       | Yes                         |
| <b>EU RoHS Compliance Date (mm/dd/yyyy):</b> | 04/01/2005                  |
| <b>EU Directive 2002/96/EC (WEEE):</b>       | Yes                         |
| <b>EU Directive 2003/11/EC (BFR):</b>        | Yes                         |
| <b>CA Prop 65 (CJ for Wire &amp; Cable):</b> | Yes                         |
| <b>MII Order #39 (China RoHS):</b>           | Yes                         |
| <b>Other Specification:</b>                  | ODVA Class 2 Thin           |

#### Flame Test

|                        |                    |
|------------------------|--------------------|
| <b>UL Flame Test:</b>  | UL1685 FT4 Loading |
| <b>CSA Flame Test:</b> | FT4                |

#### Suitability

|                             |     |
|-----------------------------|-----|
| <b>Sunlight Resistance:</b> | Yes |
| <b>Oil Resistance:</b>      | Yes |

#### Plenum/Non-Plenum

|                      |    |
|----------------------|----|
| <b>Plenum (Y/N):</b> | No |
|----------------------|----|

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

| Description | Impedance (Ohm) |
|-------------|-----------------|
| 24 AWG Pair | 120             |

#### Nom. Inductance:

| Description | Inductance (µH/m) |
|-------------|-------------------|
| 22 AWG Pair | 0.725101          |
| 24 AWG Pair | 0.823531          |

#### Nom. Capacitance Conductor to Conductor:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Capacitance (pF/m) |
|-------------|-------------|-------------------|------------------|--------------------|
| 24 AWG Pair | 1           |                   |                  | 39.372             |

#### Nominal Velocity of Propagation:

| Description | VP (%) |
|-------------|--------|
| 24 AWG Pair | 75     |

#### Maximum Delay:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Delay (ns/m) |
|-------------|-------------|-------------------|------------------|--------------|
| 24 AWG Pair |             |                   |                  | 4.46216      |

#### Maximum Conductor DC Resistance:

| Description | DCR @ 20°C (Ohm/100 m) |
|-------------|------------------------|
| 22 AWG      | 57.4175                |

## METRIC MEASUREMENT VERSION

### 3084A Multi-Conductor - DeviceBus® for ODVA DeviceNet™

|        |        |
|--------|--------|
| 24 AWG | 91.868 |
|--------|--------|

#### Nominal Outer Shield DC Resistance:

| DCR @ 20°C (Ohm/km) |
|---------------------|
| 10.4992             |

#### Max. Attenuation:

| ()      | Description      | Freq. (MHz) |
|---------|------------------|-------------|
| 0.95149 | 24 AWG Pair Only | .125        |
| 1.6405  |                  | .500        |
| 2.2967  |                  | 1.000       |

#### Max. Operating Voltage - UL:

| Voltage                        |
|--------------------------------|
| 300 V RMS (CL2, CMG)           |
| 300 V RMS (C(UL) AWM)          |
| 600 V RMS (UL AWM Style 20201) |

#### Max. Recommended Current:

| Current  |
|--|
| 1.7 Amps per conductor @ 25°C (24 AWG)               |
| 4 Amps per conductor @ 24 V per NEC CL2 (Power Pair) |

## Notes (Overall)

**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.

## Put Ups and Colors:

| Item #        | Putup    | Ship Weight | Color    | Notes | Item Desc             |
|---------------|----------|-------------|----------|-------|-----------------------|
| 3084A T5U1000 | 1,000 FT | 47.000 LB   | GRAY T5U | C     | 2 #22, 2 #24 SHLD PVC |
| 3084A T5U2000 | 2,000 FT | 96.000 LB   | GRAY T5U | C Z   | 2 #22, 2 #24 SHLD PVC |
| 3084A T5U500  | 500 FT   | 23.500 LB   | GRAY T5U | C     | 2 #22, 2 #24 SHLD PVC |
| 3084A T5U5000 | 5,000 FT | 235.000 LB  | GRAY T5U | C     | 2 #22, 2 #24 SHLD PVC |
| 3084A 0021000 | 1,000 FT | 47.000 LB   | RED      | C     | 2 #22, 2 #24 SH PVC   |

#### Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

Revision Number: 3    Revision Date: 08-01-2013

© 2019 Belden, Inc  
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product. Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).