# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



## 1696A Multi-Conductor - Single-Pair Cable

For more Information please call

1-800-Belden1



## **Description:**

22 AWG stranded (7x30) TC conductors, Datalene® insulation, twisted pair with fillers, overall Beldfoil® + TC braid shield (90% coverage), 24 AWG drain wire, PVC jacket.

## **Physical Characteristics (Overall)**

### Conductor

#### AWG:

| # Pairs | AWG | Stranding | <b>Conductor Material</b> | Dia. (in.) |
|---------|-----|-----------|---------------------------|------------|
| 1       | 22  | 7x30      | TC - Tinned Copper        | .030       |

#### Insulation

### Insulation Material:

| I | nsulation Trade Name | Insulation Material                    | Dia. (in.) |
|---|----------------------|--|------------|
| Ī | Datalene®            | FHDPE - Foam High Density Polyethylene | .082       |

### **Outer Shield**

#### **Outer Shield Material:**

| Layer # | Outer Shield Trade Name | Type  | Outer Shield Material        | Coverage (%) |
|---------|-------------------------|-------|------------------------------|--------------|
| 1       | Beldfoil® (Z-fold®)     | Tape  | Aluminum Foil-Polyester Tape | 100          |
| 2       |                         | Braid | TC - Tinned Copper           | 90           |

## **Outer Shield Drain Wire AWG:**

| AWG | Stranding | <b>Drain Wire Conductor Material</b> |  |  |  |
|-----|-----------|--------------------------------------|--|--|--|
| 24  | 7x32      | TC - Tinned Copper                   |  |  |  |

#### **Outer Jacket**

#### **Outer Jacket Material:**

# Outer Jacket Material PVC - Polyvinyl Chloride

## **Overall Cable**

Overall Nominal Diameter: 0.235 in.

#### Pair

## Pair Color Code Chart:

| Number | Color              |
|--------|--------------------|
| 1      | Light Blue & White |

## Pair Lay Length & Direction:

| Lay Length (in.) | Twists/ft. (twist/ft) |
|------------------|-----------------------|
| 2.500            | 4.800                 |

## **Mechanical Characteristics (Overall)**

| Operating Temperature Range:           | -30°C To +60°C  |
|--|-----------------|
| Non-UL Temperature Rating:             | 60°C            |
| Bulk Cable Weight:                     | 30 lbs/1000 ft. |
| Max. Recommended Pulling Tension:      | 56 lbs.         |
| Min. Bend Radius (Install)/Minor Axis: | 2.200 in.       |

Page 1 of 3 01-06-2012

# **Detailed Specifications & Technical Data**

**ENGLISH MEASUREMENT VERSION** 



## 1696A Multi-Conductor - Single-Pair Cable

| pplicable Standards & Environmental Programs |            |  |  |
|--|------------|--|--|
| EU CE Mark:                                  | Yes        |  |  |
| EU Directive 2000/53/EC (ELV):               | Yes        |  |  |
| EU Directive 2002/95/EC (RoHS):              | Yes        |  |  |
| EU RoHS Compliance Date (mm/dd/yyyy):        | 01/01/2004 |  |  |
| EU Directive 2002/96/EC (WEEE):              | Yes        |  |  |
| EU Directive 2003/11/EC (BFR):               | Yes        |  |  |
| CA Prop 65 (CJ for Wire & Cable):            | Yes        |  |  |
| MII Order #39 (China RoHS):                  | Yes        |  |  |
| Other Specification:                         | AES/EBU    |  |  |
| Plenum/Non-Plenum                            |            |  |  |
| Plenum (Y/N):                                | No         |  |  |

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Conductor:



Nom. Capacitance Cond. to Other Conductor & Shield:



Nominal Velocity of Propagation:



**Nominal Delay:** 



Nom. Conductor DC Resistance:



**Nominal Outer Shield DC Resistance:** 



Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| .384        | .58                      |
| .7056       | .69                      |
| .768        | .7                       |
| 1.024       | .76                      |
| 1.4112      | .82                      |
| 1.536       | .84                      |
| 2.048       | .88                      |
| 2.8224      | .93                      |
| 3.072       | .95                      |

Page 2 of 3 01-06-2012

## **Detailed Specifications & Technical Data**

#### **ENGLISH MEASUREMENT VERSION**



### 1696A Multi-Conductor - Single-Pair Cable

| 4.096   | 1.09 |
|---------|------|
| 5.6448  | 1.32 |
| 6.144   | 1.37 |
| 8.192   | 1.48 |
| 11.2896 | 1.74 |
| 12.288  | 1.77 |
| 24.576  | 2.41 |

Max. Operating Voltage - Non-UL:

Voltage 300 V RMS

Max. Recommended Current:

Current 3.8 Amps per conductor @ 25°C

#### **Related Documents:**

No related documents are available for this product

## **Put Ups and Colors:**

| Item #         | Putup    | Ship Weight | Color        | Notes | Item Desc            |
|----------------|----------|-------------|--------------|-------|----------------------|
| 1696A B59U1000 | 1,000 FT | 32.000 LB   | BLACK, MATTE |       | 2 #22 FHDPE SHLD PVC |
| 1696A B591000  | 1,000 FT | 33.000 LB   | BLACK, MATTE | С     | 2 #22 FHDPE SHLD PVC |
| 1696A B59250   | 250 FT   | 8.250 LB    | BLACK, MATTE |       | 2 #22 FHDPE SHLD PVC |
| 1696A B59500   | 500 FT   | 15.000 LB   | BLACK, MATTE |       | 2 #22 FHDPE SHLD PVC |

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 05-05-2009

© 2012 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 73/23/EEC), as amended by directive 93/68/EEC.