



For more Information  
please call

1-800-Belden1



### Description:

Belden's .050" pitch gray ribbon cable was designed for general purpose electronic interconnect applications. The cable provides reliable mass-termination to standard IDC connectors.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

| # Conductors | AWG | Stranding | Conductor Material |
|--------------|-----|-----------|--------------------|
| 9            | 28  | 7x36      | TC - Tinned Copper |

Conductor Spacing Center to Center: .050 +/- .002

Conductor Spacing Outside Center to Outside Center: .40 +/- .008

#### Insulation

##### Insulation Material:

| Insulation Material      | Wall Thickness (mm) |
|--------------------------|---------------------|
| PVC - Polyvinyl Chloride | 0.254               |

Insulation Resistance: >10, 000 Megaohms

#### Outer Shield

##### Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded            |

#### Overall Cabling

Overall Nominal Thickness: .035 +/- .003

Overall Nominal Width: .45 +/- .008

### Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +105°C

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

|                                       |                         |
|---------------------------------------|-------------------------|
| UL AWM Style:                         | 2651                    |
| UL Rating:                            | 105°C, 300 V RMS, VW-1  |
| CSA Specification:                    | AWM I A 105°C 300 V FT1 |
| CSA Rating:                           | 105°C, 300 V RMS, FT1   |
| 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): | 07/01/2005              |
| 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 |
|-----------------------------|-----|

**Flame Test**

|                |      |
|----------------|------|
| UL Flame Test: | VW-1 |
|----------------|------|

|                 |     |
|-----------------|-----|
| CSA Flame Test: | FT1 |
|-----------------|-----|

**Plenum/Non-Plenum**

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

**Surface Printing (Overall)****Electrical Characteristics (Overall)****Nom. Characteristic Impedance:**

| Description | Impedance (Ohm) |
|-------------|-----------------|
| (GS)        | 150             |
| (GSG)       | 105             |

**Nom. Inductance:**

| Description   | Inductance (µH/m) |
|---------------|-------------------|
| @ 1 MHz (GS)  | 0.95149           |
| @ 1 MHz (GSG) | 0.6562            |

**Nom. Capacitance Conductor to Conductor:**

| Description   | Capacitance (pF/m) |
|---------------|--------------------|
| @ 1 kHz (GSG) | 59.058             |
| @ 1 MHz (GS)  | 32.81              |
| @ 1 MHz (GSG) | 49.215             |

**Nominal Velocity of Propagation:**

| Description | VP (%) |
|-------------|--------|
|             | 72     |

**Nominal Delay:**

| Delay (ns/m)      |
|-------------------|
| 1.40 NS/FT. (GSG) |

**Nom. Conductor DC Resistance:**

| DCR @ 20°C (Ohm/km)     |
|-------------------------|
| 68.2 OHMS/1000 FT. MAX. |

**Nom. Attenuation:**

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 10          | 9.1868                |
| 20          | 15.7488               |
| 30          | 21.3265               |
| 40          | 27.2323               |
| 50          | 32.1538               |
| 60          | 39.372                |
| 70          | 42.653                |
| 80          | 45.934                |
| 90          | 51.8398               |
| 100         | 55.777                |

**Max. Operating Voltage - UL:**

| Voltage   |
|-----------|
| 300 V RMS |

**Max. Recommended Current:**

| Current                    |
|----------------------------|
| 1 Amp per conductor @ 20°C |

|                               |              |
|-------------------------------|--------------|
| Dielectric Withstand Voltage: | 2, 000 V RMS |
|-------------------------------|--------------|

**Typical Unbalanced Crosstalk:**

## 9L28009 Flat - Gray Ribbon 9L280XX Series

| Description          | Pulse Rise Time (NS) (MHz) | Near End % (MHz) | Far End % (MHz) |
|----------------------|----------------------------|------------------|-----------------|
| 10 ft. sample length | 3                          | 4.8              | 7               |
| 10 ft. sample length | 5                          | 3.5              | 4.7             |
| 10 ft. sample length | 7                          | 3                | 3               |

**Notes (Overall)**

**Notes:** GSG=Ground-Signal-Ground Mode

**Polarity Identification (Overall)**

**Polarity Identification:** RED POLARITY STRIPE ON #1 CONDUCTOR

**Related Documents:**

No related documents are available for this product

**Put Ups and Colors:**

| Item #          | Putup | Ship Weight | Color | Notes | Item Desc                     |
|-----------------|-------|-------------|-------|-------|-------------------------------|
| 9L28009 008H100 | 30 MT | 0.454 KG    | GRAY  |       | 9 #28 STR PVC RIBBON (SMI 80) |
| 9L28009 008H300 | 91 MT | 1.361 KG    | GRAY  |       | 9 #28 STR PVC RIBBON          |

Revision Number: 1    Revision Date: 05-14-2007

© 2011 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.



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331