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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 |
|--------------|-----|-----------|--------------------|
| 40           | 28  | 7x36      | TC - Tinned Copper |

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

Conductor Spacing Outside Center to Outside Center: 1.95 +/- .012

#### 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: 2.00 +/- .012

### 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:**

## 9L28040 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:** GS=Ground-Signal Mode; 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                    |
|-----------------|-------|-------------|-------|-------|------------------------------|
| 9L28040 008H100 | 30 MT | 2.359 KG    | GRAY  |       | 40 #28 STR PVC RIBBON(SMI80) |

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