# imall

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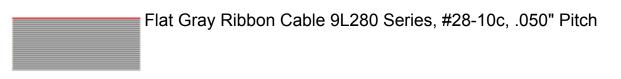
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## Part Number: 9L28010



#### **Product Description**

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

#### **Technical Specifications**

#### **Physical Characteristics (Overall)**

| Conductor            |                     |                |       |                   |
|----------------------|---------------------|----------------|-------|-------------------|
| AWG                  | Material            | Construction n | x D I | No. of Conductors |
| 28                   | TC - Tinned Copper  | Stranded       |       | 10                |
| Condu                | Conductor Count: 10 |                |       |                   |
| Conductor Size: 28 A |                     | 28 AWO         | 3     |                   |

#### Insulation

| Material                 | Nominal Wall Thickness |
|--------------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.01 in                |

#### Color Chart



#### **Outer Shield Material**

Material Unshielded

#### **Outer Jacket Material**

Nominal Wall Thickness
0.035 in

#### **Construction and Dimensions**

| Cond Spacing Center-Center:         | .050 in   |
|-------------------------------------|---|
| Cond Spacing Center-Center Outside: | .45 in  |
| OuterJacket1, Nominal Width:        | .50 in  |
| Print Legend:                       | BELDEN-T 28 AWG CSA AWM I A 105°C 300 V FT1 LL7874 (UL LOGO) AWM STYLE 2651 VW-1 E12683 |

#### **Electrical Characteristics**

#### Conductor DCR

Nominal Conductor DCR

68.2 Ohm/1000ft

#### Capacitance

| Element       | Nom. Capacitance Conductor to Conductor |            |
|---------------|---|------------|
| @ 1 kHz (GSG) | 18 pF/ft                                |            |
| @ 1 MHz (GS)  | 10 pF/ft                                |            |
| @ 1 MHz (GSG) | 15 pF/ft                                |            |
| Shielding:    |   | Unshielded |

#### Inductance

| Element       | Nominal Inductance |
|---------------|--------------------|
| @ 1 MHz (GS)  | 0.29 µH/ft         |
| @ 1 MHz (GSG) | 0.2 µH/ft          |

#### Impedance

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

#### High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 10 MHz          | 2.8 dB/100ft        |
| 20 MHz          | 4.8 dB/100ft        |
| 30 MHz          | 6.5 dB/100ft        |
| 40 MHz          | 8.3 dB/100ft        |
| 50 MHz          | 9.8 dB/100ft        |
| 60 MHz          | 12 dB/100ft         |
| 70 MHz          | 13 dB/100ft         |
| 80 MHz          | 14 dB/100ft         |
| 90 MHz          | 15.8 dB/100ft       |
| 100 MHz         | 17 dB/100ft         |

#### Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.4 ns/ft     | 72 %                                     |

#### Unbalanced Crosstalk

| Element              | Typical Unbalanced NEXT % | Typical Unbalanced FEXT % | Typical Cross Talk Pulse Rise Time (ns) |
|----------------------|---------------------------|---------------------------|---|
| 10 ft. sample length | 4.8 MHz                   | 7 MHz                     | 3 ns                                    |
| 10 ft. sample length | 3.5 MHz                   | 4.7 MHz                   | 5 ns                                    |
| 10 ft. sample length | 3 MHz                     | 3 MHz                     | 7 ns                                    |

#### High Freq

| Frequency [MHz] | Max. Insertion Loss (Attenuation) |
|-----------------|-----------------------------------|
| 10 MHz          | 2.5 dB/100m                       |
| 20 MHz          |                                   |
| 30 MHz          |                                   |
| 40 MHz          |                                   |
| 50 MHz          |                                   |
| 60 MHz          |                                   |
| 70 MHz          |                                   |
| 80 MHz          |                                   |
| 90 MHz          |                                   |
| 100 MHz         |                                   |

#### Current

Max. Recommended Current [A]

per conductor @ 20°C: 1 A

#### Voltage

| Dielectric Withstand Voltage | UL Voltage Rating |
|------------------------------|-------------------|
| 2,000 V RMS                  | 300 V RMS         |

### **Temperature Range**

| Operating Temp Range:         | -40°C To +105°C |
|-------------------------------|-----------------|
| Mechanical Characteristics    |                 |
| Bulk Cable Weight:            | 12 lbs/1000ft   |
| Min Bend Radius/Minor Axis:   | 2.5 in          |
| Min Bend Radius/Installation: | 2.5 in          |

#### **Standards**

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

#### **Applicable Environmental and Other Programs**

| EU Directive 2000/53/EC (ELV):        | Yes                           |
|---------------------------------------|-------------------------------|
| EU Directive 2003/96/EC (BFR):        | Yes                           |
| . ,                                   |                               |
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| . ,                                   |                               |
| EU Directive 2015/863/EU:             | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
|                                       |                               |
| EU CE Mark:                           | Yes                           |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2005-07-01                    |
|                                       |                               |
| CA Prop 65 (CJ for Wire & Cable):     | Yes                           |
| MII Order #39 (China RoHS):           | Yes                           |
|                                       |                               |

#### Flammability, LS0H, Toxicity Testing

| UL Flammability:   | VW-1      |
|--------------------|-----------|
| CSA Flammability:  | FT1       |
| UL voltage rating: | 300 V RMS |

#### Plenum/Non-Plenum

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

#### Part Number

#### Variants

| Item #          | Color |
|-----------------|-------|
| 9L28010 008H100 | Gray  |
| 9L28010 008H300 | Gray  |

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