

Part Number: 9L28026



Flat Gray Ribbon Cable 9L280 Series, #28-26c, .050" Pitch

# **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 | No. of Conductors |
| 28                  | TC - Tinned Copper | Stranded     |       | 26                |
| Conductor Count: 26 |                    | 26           |       |                   |
| Conductor Size:     |                    | 28 AV        | VG    |                   |

#### Insulation

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

#### **Color Chart**



#### **Outer Shield Material**



# Outer Jacket Material



## **Construction and Dimensions**

| Cond Spacing Center-Center:  | .050 in   |
|------------------------------|---|
| OuterJacket1, Nominal Width: | 1.30 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



## Capacitance

| Element       | Nom. Capacitance Cond | ductor 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

| N | lominal 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] |
|-----------------|
| 10 MHz          |
| 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: | 30 lbs/1000ft |
|--------------------|---------------|

# 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 |  |
|---------------|----|--|

#### **Part Number**

#### Variants



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