

Part Number: 9L28014



Flat Gray Ribbon Cable 9L280 Series, #28-14c, .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 | 14 |

| | |
|------------------|--------|
| Conductor Count: | 14 |
| Conductor Size: | 28 AWG |

Insulation

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

Color Chart

| Color |
|-------|
| Gray |

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: | .65 in |
| OuterJacket1, Nominal Width: | .70 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 |
| 2.52 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 μ H/ft |
| @ 1 MHz (GSG) | 0.2 μ H/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 | 2.56 dB/100m |
| 20 MHz | |
| 30 MHz | |
| 40 MHz | |
| 50 MHz | |
| 60 MHz | 2.55 dB/100m |
| 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: | 16 lbs/1000ft |
| Min Bend Radius/Minor Axis: | 2.52 in |
| Min Bend Radius/Installation: | 2.55 in |

Dimensions (WxHxD)

| Depth |
|-------|
| 2.52 |

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 |

Suitability

| | |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

Flammability, LSOH, 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

| Item # | Color |
|-----------------|-------|
| 9L28014 008H100 | Gray |
| 9L28014 008H300 | Gray |

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