



Product: [9L28009](#)

Flat Gray Ribbon Cable .050" Pitch, 9L280XX Series, #28-9c, PVC Ins

Product Description

Flat Gray Ribbon Cable .050" Pitch, 9L280XX Series, 9 Conductor, 28 AWG (7x36) Tinned Copper, PVC Insulation

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | Internal interconnection, internal wiring of electronic equipment, reliable mass-termination to standard IDC connectors |
|------------------------|---|

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material |
|-----|-----------|--------------------|
| 28 | 7x36 | TC - Tinned Copper |

| | |
|------------------|---|
| Conductor Count: | 9 |
|------------------|---|

Insulation

| Material | Nominal Wall Thickness |
|--------------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.010 in |

Color Chart

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

| | |
|--------------|--------------------------------|
| Table Notes: | First Conductor has Red Stripe |
|--------------|--------------------------------|

Construction and Dimensions

| | |
|--|------------------|
| Conductor Spacing Center-Center: | .050 +/- .002 in |
| Conductor Spacing Center-Center Outside: | .400 +/- .006 in |
| OuterJacket1, Nominal Width: | .450 +/- .006 in |
| OuterJacket1, Nom Thick Flat Section: | 0.035 in |

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 |

| | |
|----------------------------|-------------|
| Min Insulation Resistance: | 10,000 MOhm |
|----------------------------|-------------|

Inductance

| Element | Nominal Inductance |
|--------------|--------------------|
| @ 1 MHz (GS) | 0.29 μ H/ft |

| | |
|---------------|-----------|
| @ 1 MHz (GSG) | 0.2 µH/ft |
|---------------|-----------|

Impedance

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

| | |
|--------------|-------------------------------|
| Table Notes: | GSG=Ground-Signal-Ground Mode |
|--------------|-------------------------------|

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.40 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 | 7 | 3 ns |
| 10 ft. sample length | 3.5 | 4.7 | 5 ns |
| 10 ft. sample length | 3 | 3 | 7 ns |

Current

| Max. Recommended Current [A] |
|------------------------------|
| 1 Amp per Conductor at 20°C |

Voltage

| Dielectric Withstand Voltage | UL Voltage Rating |
|------------------------------|-------------------|
| 2000 V | 300 V |

Temperature Range

| | |
|------------------------------|-----------------|
| Operating Temperature Range: | -40°C to +105°C |
|------------------------------|-----------------|

Mechanical Characteristics

| | |
|------------------------------|---------------|
| Bulk Cable Weight: | 10 lbs/1000ft |
| Min. Bend Radius/Minor Axis: | 2.5 in |

Standards

| | |
|--------------------------|----------|
| UL AWM Style Compliance: | AWM 2651 |
| CSA AWM Compliance: | I A |

Applicable Environmental and Other Programs

| | |
|-------------------------------------|-----|
| EU Directive Compliance: | Yes |
| EU CE Mark: | Yes |
| CA Prop 65 (CJ for Wire and Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |

Suitability

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

Flammability, LS0H, Toxicity Testing

| | |
|--------------------|-------|
| UL Flammability: | VW-1 |
| UL voltage rating: | 300 V |

Plenum/Non-Plenum

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

Related Part Numbers

Variants

| Item # | Color | Length | UPC |
|-----------------|-------|--------|--------------|
| 9L28009 008H100 | Gray | 100 ft | 612825221579 |
| 9L28009 008H300 | Gray | 300 ft | 612825221586 |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.328 Revision Date: 05-05-2023 |
|----------------------|--|

© 2024 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 here in 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 "ASIS" 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 all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information 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. The 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Belden Wire & Cable:](#)

[9L28009 008H100](#) [9L28009 008H300](#)