



Product: [9L28309](#)

Shielded Flat Ribbon Cable .050" Pitch, 9L283XX Series, #28-9c, PVC Ins, O/A Foil Tape, PVC Jacket

Product Description

Shielded Flat Ribbon Cable .050" Pitch, 9L283XX Series, 9 Conductor, 28 AWG (7x36) Tinned Copper, Gray PVC Insulation, Beldfoil® Tape, Black PVC Jacket

Technical Specifications

Product Overview

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

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 |
|--------------|--------------------------------|

Outer Shield

| Type | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|------|-------------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil® | 100% | TC - Tinned Copper | 28 | 7x36 |

Outer Jacket

| Material | Nominal Wall Thickness |
|--------------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.038 in |

Construction and Dimensions

| | |
|--|------------------|
| Conductor Spacing Center-Center: | .050 +/- .002 in |
| Conductor Spacing Center-Center Outside: | .400 +/- .008 in |
| OuterJacket1, Nominal Width: | .520 in |
| OuterJacket1, Nom Thick Flat Section: | 0.115 in |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR |
|-----------------------|
| 68.2 Ohm/1000ft |

Capacitance

| Element | Nom. Capacitance Conductor to Conductor |
|------------------------------------|---|
| @ 1 kHz (GSG) with shield grounded | 70 pF/ft |
| @ 1 MHz (GSG) with shield grounded | 50 pF/ft |

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

Inductance

| Element | Nominal Inductance |
|------------------------------------|--------------------|
| @ 1 MHz (GSG) with shield grounded | 0.11 µH/ft |

Impedance

| Nominal Characteristic Impedance | Nominal Characteristic Impedance Description |
|----------------------------------|--|
| 45 Ohm | (GSG) with shield grounded |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 10 MHz | 6 dB/100ft |
| 20 MHz | 9.5 dB/100ft |
| 30 MHz | 12.5 dB/100ft |
| 40 MHz | 14.9 dB/100ft |
| 50 MHz | 17.2 dB/100ft |
| 60 MHz | 19 dB/100ft |
| 70 MHz | 21.5 dB/100ft |
| 80 MHz | 23 dB/100ft |
| 90 MHz | 24.5 dB/100ft |
| 100 MHz | 26 dB/100ft |

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

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.7 ns/ft | 60% |

Unbalanced Crosstalk

| Element | Typical Unbalanced NEXT % | Typical Unbalanced FEXT % | Typical Cross Talk Pulse Rise Time (ns) |
|--|---------------------------|---------------------------|---|
| 10 ft. sample length with ground connected to shield | 1.5 | 2 | 3 ns |
| 10 ft. sample length with ground connected to shield | 0.9 | 1.5 | 5 ns |
| 10 ft. sample length with ground connected to shield | 0.7 | 1.2 | 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 Temp Range: | -20°C to +105°C |
|-----------------------|-----------------|

Mechanical Characteristics

| | |
|---------------------------------------|---------------|
| Bulk Cable Weight: | 44 lbs/1000ft |
| Min. Bend Radius During Installation: | 3.0 in |
| Min. Bend Radius/Minor Axis: | 1.25 in |

Standards

| | |
|--------------------------|-------|
| UL AWM Style Compliance: | 20081 |
| CSA AWM Compliance: | II A |

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 2): | Yes |
| EU Directive 2012/19/EU (WEEE): | Yes |

| | |
|--|-------------------------------|
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | 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 |

Plenum/Non-Plenum

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

Part Number

Variants

| Item # | Color | Put-Up Type | Length | UPC |
|----------------|-------|-------------|--------|--------------|
| 9L28309 010100 | Black | Reel | 100 ft | 612825221722 |

| | |
|-----------|--|
| Footnote: | E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'. |
|-----------|--|

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.405 Revision Date: 12-15-2021 |
|----------------------|--|

© 2022 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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Flat Cables](#) category:

Click to view products by [Belden](#) manufacturer:

Other Similar products are found below :

[F28-A25G](#) [F28-A34G](#) [F28-A36G](#) [FST-23A-15](#) [AYT1510-US](#) [171-37G](#) [902220736002000](#) [902220736006000](#) [28100-0614](#) [9L28014-008-H300](#) [F28-A24G](#) [F28-A60G](#) [28100-0571](#) [28100-0602](#) [28100-0650](#) [28100-0664](#) [336506-100SF](#) [336518](#) [336537-CUT-LENGTH](#) [3447/10-100](#) [362514100MSF](#) [40WDY00005](#) [AYT51163](#) [336506-300](#) [336508-300](#) [C374910](#) [3625/24100M](#) [3749/10-100](#) [375630](#) [3-971111-6](#) [1-1437356-3](#) [812504](#) [5-1437214-8](#) [3355/15](#) [40WBY00007](#) [3609/12](#) [5111196336](#) [607.5689.087](#) [607.5689.091](#) [3801/04](#) [8124/04](#) [3801/12](#) [3625/22100MSF](#) [902220736005000](#) [902220736004000](#) [C3811/10-100](#) [3625/22-30M](#) [3319/10-300](#) [65-TF268M](#) [C3365/18-100](#)