



Product: [9L28009](#)

Flat Gray Ribbon Cable 9L280 Series, #28-09c, .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	Stranding	Material	No. of Conductors
28	7x36	TC - Tinned Copper	9

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

Insulation

Material	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.01 in

Outer Shield Material

Material
No Shield

Outer Jacket Material

Nominal Wall Thickness
.035 in

Construction and Dimensions

Cond Spacing Center-Center:	.050 +/- .002
Cond Spacing Center-Center Outside:	.40 +/- .008
OuterJacket1, Nominal Width:	.45 +/- .006 mm

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Conductor DCR Conductor Resistance	Nominal Inner Shield DCR	Nominal Outer Shield DCR
68.2 OHMS/1000 FT. MAX. Ohm/1000ft	68.2 Ohm/1000ft	2.5 Ohm/km	2.5 Ohm/km

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

Inductance

Element	Nominal Inductance
@ 1 MHz (GS)	0.29 μ H/ft
@ 1 MHz (GSG)	0.2 μ H/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

Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
72 ns/100m	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 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]
1 Amp per conductor @ 20°C

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:	10 lbs/1000ft
Min Bend Radius/Minor Axis:	2.5 in

Standards

UL Rating:	105°C, 300 V RMS, VW-1
CSA Rating:	105°C, 300 V RMS, FT1

Applicable Environmental and Other Programs

EU Directive Compliance:	Yes
--------------------------	-----

EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-07-01
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

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

Product Notes

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

History

Update and Revision:	Revision Number: 0.235 Revision Date: 04-28-2020
----------------------	--

© 2020 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.