# **Detailed Specifications & Technical Data**

# **ENGLISH MEASUREMENT VERSION**



# 9L28009 Flat - Gray Ribbon 9L280XX Series



For more Information please call

1-800-Belden1



# **General Description:**

Plenum (Y/N):

Belden's .050" pitch gray ribbon cable was designed for general purpose electronic interconnect applications. The cable provides reliable mass-termination to standard IDC connectors.

applications. The cable provides reliable mas	ss-termination to standard IDC connectors.				
Physical Characteristics (Overall)					
Conductor AWG:					
# Conductors AWG Stranding Conductor Material					
9   28   7x36   TC - Tinned Copper					
Total Number of Conductors:	9				
Conductor Spacing Center to Center:	.050 +/002				
Conductor Spacing Outside Center to Outside Center:	.40 +/008				
Insulation Insulation Material:					
Insulation Material Wall Thickness (in.)					
PVC - Polyvinyl Chloride .010					
Insulation Resistance:	>10,000 Megaohms				
Outer Shield					
Outer Shield Material:  Outer Shield Material					
Unshielded					
Overall Cable					
Overall Nominal Thickness:	.035 +/003				
Overall Nominal Width:	.45 +/006				
Mechanical Characteristics (Overall)					
Operating Temperature Range:	-40°C To +105°C				
Bulk Cable Weight:	10 lbs/1000 ft.				
Applicable Specifications and Agency Compliance (	Overall)				
Applicable Standards & Environmental Programs	<u>'</u>				
UL Rating:	105°C, 300 V RMS, VW-1				
CSA Rating:	105°C, 300 V RMS, FT1				
EU Directive 2011/65/EU (ROHS II):	Yes				
EU CE Mark:	Yes				
EU Directive 2000/53/EC (ELV):	Yes				
EU Directive 2002/95/EC (RoHS):	Yes				
EU RoHS Compliance Date (mm/dd/yyyyy): 07/01/2005					
EU Directive 2002/96/EC (WEEE): Yes					
EU Directive 2003/11/EC (BFR): Yes					
CA Prop 65 (CJ for Wire & Cable):	Yes				
MII Order #39 (China RoHS):	Yes				
Flame Test					
UL Flame Test:	VW-1				
CSA Flame Test:	FT1				
Plenum/Non-Plenum					

No

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#### Surface Printing (Overall)

Surface Printing:

BELDEN-T 28 AWG CSA AWM I A 105°C 300 V FT1 LL7874 (UL LOGO) AWM STYLE 2651 VW-1 E12683

# **Electrical Characteristics (Overall)**

#### Nom. Characteristic Impedance:

Description	Impedance (Ohm)		
(GS)	150		
(GSG)	105		

#### Nom. Inductance:

Description	Inductance (µH/ft)		
@ 1 MHz (GS)	.29		
@ 1 MHz (GSG)	.20		

# Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/ft)		
@ 1 kHz (GSG)	18		
@ 1 MHz (GS)	10		
@ 1 MHz (GSG)	15		

#### Nominal Velocity of Propagation:

Description	VP (%)
	72

# Nominal Delay:

# Delay (ns/ft) 1.40 NS/FT. (GSG)

#### Nom. Conductor DC Resistance:

# DCR @ 20°C (Ohm/1000 ft) 68.2 OHMS/1000 FT. MAX.

#### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.		
10	2.8		
20	4.8		
30	6.5		
40	8.3		
50	9.8		
60	12		
70	13		
80	14		
90	15.8		
100	17		

#### Max. Operating Voltage - UL:

Voltage 300 V RMS

#### Max. Recommended Current:

Current
1 Amp per conductor @ 20°C

Dielectric Withstand Voltage:

2, 000 V RMS

# Typical Unbalanced Crosstalk:

Description	Pulse Rise Time (NS) (MHz)	Near End % (MHz)	Far End % (MHz)
10 ft. sample length	3	4.8	7
10 ft. sample length	5	3.5	4.7
10 ft. sample length	7	3	3

# Notes (Overall)

Notes: GSG=Ground-Signal-Ground Mode

# Polarity Identification (Overall)

Polarity Identification: RED POLARITY STRIPE ON #1 CONDUCTOR

# **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9L28009 008H100	100 FT	1.100 LB	GRAY		9 #28 STR PVC RIBBON (SMI 80)
9L28009 008H300	300 FT	4.200 LB	GRAY		9 #28 STR PVC RIBBON

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# 9L28009 Flat - Gray Ribbon 9L280XX Series

Revision Date: 09-14-2012 Revision Number: 2

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# **Mouser Electronics**

**Authorized Distributor** 

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Belden Wire & Cable:

9L28009 008H100 9L28009 008H300