# **Detailed Specifications & Technical Data**

## **ENGLISH MEASUREMENT VERSION**



## 9L28040 Flat - Gray Ribbon 9L280XX Series



For more Information please call

1-800-Belden1



## **General Description:**

**CSA Flame Test:** 

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.

#### **Physical Characteristics (Overall)** Conductor AWG: # Conductors AWG Stranding Conductor Material 28 7x36 TC - Tinned Copper **Total Number of Conductors:** 40 **Conductor Spacing Center to Center:** .050 +/- .002 **Conductor Spacing Outside Center to Outside Center:** 1.95 +/- .012 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:** 2.00 +/- .012 **Mechanical Characteristics (Overall) Operating Temperature Range:** -40°C To +105°C **Bulk Cable Weight:** 52 lbs/1000 ft Applicable Specifications and Agency Compliance (Overall) **Applicable Standards & Environmental Programs UL AWM Style:** UL Rating: 105°C, 300 V RMS, VW-1 CSA Specification: AWM I A 105°C 300 V FT1 CSA Rating: 105°C, 300 V RMS, FT1 EU Directive 2011/65/EU (ROHS II): EU CE Mark: Yes EU Directive 2000/53/EC (ELV): Yes EU Directive 2002/95/EC (RoHS): EU RoHS Compliance Date (mm/dd/yyyy): 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

FT1

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Plenum/Non-Plenum

Plenum (Y/N): No

## **Surface Printing (Overall)**

## **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: GS=Ground-Signal Mode; 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
9L28040 008H100	100 FT	5.600 LB	GRAY		40 #28 STR PVC RIBBON(SMI80)

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

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