# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



### 9L28060 Flat - Gray Ribbon 9L280XX Series





For more Information please call

1-800-Belden1



### **General Description:**

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

60	28	7x36	TC - Tinned Copper

Total Number of Conductors:	60
Conductor Spacing Center to Center:	.050 +/002
Conductor Spacing Outside Center to Outside Center:	2.95 +/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:	3.00 +/012

### **Mechanical Characteristics (Overall)**

Operating Temperature Range: -40°C To +105°C

## **Applicable Specifications and Agency Compliance (Overall)**

### **Applicable Standards & Environmental Programs**

UL AWM Style:	2651
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):	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/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
CSA Flame Test:	FT1

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Plenum/Non-Plenum

Plenum (Y/N): No

**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: 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

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### 9L28060 Flat - Gray Ribbon 9L280XX Series

Revision Date: 12-11-2008 Revision Number: 1

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Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).

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**Authorized Distributor** 

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Belden Wire & Cable: 9L28060 008H100