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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
50	28	7x36	TC - Tinned Copper

Total Number of Conductors: 50

Conductor Spacing Center to Center: .050 +/- .002

Conductor Spacing Outside Center to Outside Center: 2.45 +/- .012

### Insulation

**Insulation Material:**

Insulation Material	Wall Thickness (mm)
PVC - Polyvinyl Chloride	0.254

Insulation Resistance: >10,000 Megaohms

### Outer Shield

**Outer Shield Material:**

Outer Shield Material
Unshielded

### Overall Cable

Overall Nominal Thickness: .035 +/- .003

Overall Nominal Width: 2.50 +/- .012

## Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 96.733 Kg/Km

## 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
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EU Directive 2002/96/EC (WEEE):	Yes
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EU Directive 2003/11/EC (BFR):	Yes
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CA Prop 65 (CJ for Wire & Cable):	Yes
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MII Order #39 (China RoHS):	Yes
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### Flame Test

UL Flame Test:	VW-1
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CSA Flame Test:	FT1
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### Plenum/Non-Plenum

Plenum (Y/N):	No
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## Surface Printing (Overall)

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

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

### Nom. Inductance:

Description	Inductance (µH/m)
@ 1 MHz (GS)	0.95149
@ 1 MHz (GSG)	0.6562

### Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/m)
@ 1 kHz (GSG)	59.058
@ 1 MHz (GS)	32.81
@ 1 MHz (GSG)	49.215

### Nominal Velocity of Propagation:

Description	VP (%)
	72

### Nominal Delay:

Delay (ns/m)
1.40 NS/FT. (GSG)

### Nom. Conductor DC Resistance:

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

### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
10	9.1868
20	15.7488
30	21.3265
40	27.2323
50	32.1538
60	39.372
70	42.653
80	45.934
90	51.8398
100	55.777

### 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
9L28050 008H100	30 MT	3.221 KG	GRAY		50 #28 STR PVC RIBBON

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