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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
40	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: 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

### 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/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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