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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 (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: 2.00 +/- .012

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 77.386 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
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)

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

METRIC MEASUREMENT VERSION

9L28040 Flat - Gray Ribbon 9L280XX Series

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)

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

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