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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
20	28	7x36	TC - Tinned Copper

Total Number of Conductors: 20

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

Conductor Spacing Outside Center to Outside Center: .95 +/- .008

### 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: 1.00 +/- .008

## Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 23 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
MIL Order #39 (China RoHS):	Yes

### Flame Test

UL Flame Test: VW-1

CSA Flame Test: FT1

**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: 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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# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

## 9L28020 Flat - Gray Ribbon 9L280XX Series

9L28020 008H100	100 FT	2.600 LB	GRAY		20 #28 STR PVC RIBBON (SMI80)
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