

9L30050 Flat - Gray Ribbon 9L300XX Series





## **Description:**

Belden's miniaturized .025" pitch gray ribbon cable provides higher signal density and greater design flexibility. The cable is manufactured to precise tolerances which allows for mass-termination to standard IDC connectors.

# **Physical Characteristics (Overall)**

#### Conductor

#### AWG:

# Conductors	AWG	Stranding	Conductor Material
50	30	7x38	TC - Tinned Copper

**Conductor Spacing Center to Center:** .025 +/- .002 **Conductor Spacing Outside Center to Outside** 1.225 +/- .009

Center:

#### Insulation

# **Insulation Material:**

Insulation Material	Wall Thickness (in.)		
PVC - Polyvinyl Chloride	.0075		

> 10, 000 Megaohms Insulation Resistance:

#### **Outer Shield**

#### **Outer Shield Material:**

## **Outer Shield Material** Unshielded

#### **Overall Cabling**

**Overall Nominal Thickness:** .027 +/- .002 **Overall Nominal Width:** 1.25 +/- .011

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

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

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

## **Applicable Standards & Environmental Programs**

UL AWM Style:	2678
UL Rating:	105°C, 150 V, VW-1
CSA Specification:	AWM I A 105°C 150 V FT1
CSA Rating:	105°C, 150 V, FT1
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

# **Detailed Specifications & Technical Data**





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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

# **Surface Printing (Overall)**

Surface Printing: BELDEN-T 30 AWG CSA AWM I A 105°C 150 V FT1 LL7874 (UL LOGO)

AWM STYLE 2678 VW-1 E12683

# **Electrical Characteristics (Overall)**

### Nom. Characteristic Impedance:

Description	Impedance (Ohm)
(GS)	105
(GSG)	70

#### Nom. Inductance:

Description	Inductance (µH/ft)
@ 1 MHz (GS)	.21
@ 1 MHz (GSG)	.14

#### Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/ft)
@ 1 kHz (GS)	18
@ 1 kHz (GSG)	32
@ 1 MHz (GS)	14
@ 1 MHz (GSG)	24

# Nominal Velocity of Propagation:

Description	VP	(%)
	66	

### **Nominal Delay:**

Delay (ns/ft) 1.52 NS/FT. (GSG)

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 108 OHMS/1000 FT. MAX.

#### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
10	5.4
20	9.5
30	14.1
40	18
50	20.1
60	24.9
70	26.5
80	30
90	30.6
100	33

### Max. Operating Voltage - UL:

Voltage 150 V RMS

Max. Recommended Current:

# **Detailed Specifications & Technical Data**





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Current
0.5 Amps 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	6	7.1
10 ft. sample length	5	5.4	7
10 ft. sample length	7	5	6.6

# 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
9L30050 008H100	100 FT	3.100 LB	GRAY		50 #30 STR PVC RIBBON

# **Gray Ribbon 9L300XX Series**

.025" Pitch, 30 AWG, PVC

### **Product Description**

Belden's miniaturized .025" pitch extruded gray ribbon cable provides higher signal density, greater design flexibility, and an alternative to the expensive Teflon® transmission cables. The cable is manufactured to precise tolerances which allows for mass-termination to standard .050" contact IDC connectors while assuring consistent and reliable electrical characteristics. With the miniaturization of the interconnects, significant reduction in components can be achieved. The cable is constructed of stranded 30 AWG (7x38) tinned copper conductors. Insulation material consists of Gray PVC, with a Red polarity stripe for proper circuit alignment. Standard conductor counts are 26 and 50; other sizes are available upon request. The cable is UL approved and CSA certified, and passes the VW-1 Vertical Wire Flame Test.

Color Code: Gray with Red polarity stripe.

**Application:** Internal interconnection or internal wiring of electronic equipment.

#### **Physical Specifications**

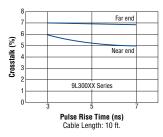
Conductor	30 AWG (7x38) Tinned Copper
Insulation	.0075" Nom. Wall Gray PVC
Pitch	.025" ± .002"
Temperature Rating	-40 to +105°C
Flammability Rating	UL: VW-1, CSA: FT1
UL Approval	File #E12683, Style 2678
CSA Approval	File #LL7874, CSA AWM I A 105°C 150V FT1
Packaging	H100, H300

#### **Electrical Specifications**

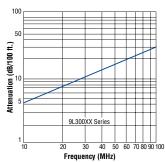
Voltage Rating	150V RMS
Current Rating	.5A
Conductor Resistance	108Ω/1000 ft.
Insulation Resistance	>1 x 10¹⁰Ω • 10 ft. (3m)
Impedance*	70Ω
Capacitance* (@ 1 MHz)	24 pF/ft. (79 pF/m)
Inductance* (@ 1 MHz)	.14 μH/ft. (.46 μH/m)
Propagation Delay*	1.52 ns/ft. (4.99 ns/m)

<sup>\*</sup>Test Configuration: G-S-G (ground-signal-ground).

#### **Unbalanced Crosstalk**

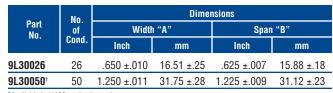


#### **Attenuation**



Teflon is a DuPont trademark.





<sup>&</sup>lt;sup>†</sup>Available in H100 packaging only.

#### **Dimensions**

