# **Detailed Specifications & Technical Data**



ENGLISH MEASUREMENT VERSION

# 2L28050 Flat - Gray Ribbon 2L280XX Series



For more Information please call

1-800-Belden1



# **General Description:**

Belden<sup>s</sup> 1.00mm pitch gray ribbon cable was designed for the disk drive market where the 2.00mm IDC connector is widely used.

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:	.039 +/003		
Conductor Spacing Outside Center to Outside Center:	1.929 +/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:	1.964 +/012		
Mechanical Characteristics (Overall)			
Operating Temperature Range:	-40°C To +105°C		
Bulk Cable Weight:	57 lbs/1000 ft.		
Applicable Specifications and Agency Com	npliance (Overall)		
Applicable Standards & Environmental Progra	ms		
UL Rating:	AWM Style 2651		
CSA Rating:	IA		
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		

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CSA Flame Test:	FT1	
UL Flame Test:	VW-1	
Flame Test		
MII Order #39 (China RoHS):	Yes	
CA Prop 65 (CJ for Wire & Cable):	Yes	
EU Directive 2003/11/EC (BFR):	Yes	

# Surface Printing (Overall)

# **Electrical Characteristics (Overall)**

### Nom. Characteristic Impedance:

## Description Impedance (Ohm)

(GS) 130 (GSG) 90

#### Nom. Inductance:

Description	Inductance (µH/ft)
@ 1 MHz (GS)	.24
@ 1 MHz (GSG)	.16

#### Nom. Capacitance Conductor to Conductor:

# Description Capacitance (pF/ft)

@ 1 kHz (GSG)	20
@ 1 MHz (GS)	9.5
@ 1 MHz (GSG)	16.5

## Nominal Velocity of Propagation:

# Description VP (%)

69

#### Nominal Delay:

Delay (ns/ft) 1.47 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.)

3.3
5.1
7
8.3
9.8
11.6
13.1
14.2
16.4
17.6

#### 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

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#### Typical Unbalanced Crosstalk:

Description	Pulse Rise Time (NS) (MHz)	Near End % (MHz)	Far End % (MHz)
10 ft. sample length	3	4.3	6.7
10 ft. sample length	5	3.8	3.4
10 ft. sample length	7	3.6	2.5

## Notes (Overall)

Notes: GSG=Ground-Signal-Ground Mode

### **Polarity Identification (Overall)**

Polarity Identification:

BLACK POLARITY STRIPE ON #1 CONDUCTOR

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2L28050 008H100	100 FT	6.000 LB	GRAY		50 #28 STR PVC RIBBON

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