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1-800-Belden1



## General Description:

Belden's .050" pitch, color-coded PVC flat cable allows for quick identification and circuit tracing, along with easy breakouts for circuit routing, and is designed for mass-termination with 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

### Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.010

Insulation Resistance: >10,000 Mega Ohms

Insulation Color Code Chart:

Number	Color
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Purple
8	Gray
9	White
10	Black
Over 10 conductors	Repeat as required

### Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
Clear PVC

### Overall Cable

Overall Nominal Thickness: .036

Overall Nominal Width: 2.00

## Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +105°C

Bulk Cable Weight: 44 lbs/1000 ft.

Min. Bend Radius/Minor Axis: 0.500 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

UL Rating: AWM 20932

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):	10/01/2005
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
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**Plenum/Non-Plenum**

Plenum (Y/N):	No
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**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

# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

9R28040 Flat - Rainbow 9R280XX Series

## Notes (Overall)

Notes: GS=Ground-Signal Mode; GSG=Ground-Signal-Ground Mode

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9R28040 000100	100 FT	4.800 LB	NONE		40 #28 PVC RAINBOW

Revision Number: 3 Revision Date: 10-02-2012

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