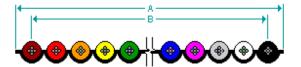
# **Detailed Specifications & Technical Data**

**ENGLISH MEASUREMENT VERSION** 



#### 9R28060 Flat - Rainbow 9R280XX Series



For more Information please call

1-800-Belden1



## **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	<b>Conductor Material</b>
60	28	7x36	TC - Tinned Copper

Total Number of Conductors: 60

Conductor Spacing Center to Center: .050 +/- .005

Conductor Spacing Outside Center to Outside 2.95 +/- .015

Center:

#### Insulation

# Insulation Material:

Insulation Material	Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.005

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 +/- .002

Overall Nominal Width: 3.00

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# **Detailed Specifications & Technical Data**





# 9R28060 Flat - Rainbow 9R280XX Series

Mechanical Characteristics (Overall)	
Operating Temperature Range:	-20°C To +105°C
Bulk Cable Weight:	77 lbs/1000 ft.
Applicable Specifications and Agency C	Compliance (Overall)
Applicable Standards & Environmental Pro	grams
UL Rating:	AWM 20932, 105°C, 300 V RMS, VW-1
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
MII Order #39 (China RoHS):	Yes

# Flame Test

UL Flame Test: VW-1

## Plenum/Non-Plenum

Plenum (Y/N): No

# **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:

E	Description	VP	(%)
Г		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

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# **Detailed Specifications & Technical Data**

#### **ENGLISH MEASUREMENT VERSION**



#### 9R28060 Flat - Rainbow 9R280XX Series

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

### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9R28060 000100	100 FT	6.500 LB	NONE		60 #28 PVC RAINBOW

Revision Number: 2 Revision Date: 09-11-2009

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