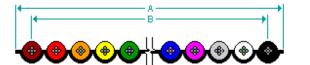
# **Detailed Specifications & Technical Data**

METRIC MEASUREMENT VERSION



#### 9R28010 Flat - Rainbow 9R280XX Series



For more Information please call

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	<b>Conductor Material</b>
10	28	7x36	TC - Tinned Copper

Total Number of Conductors: 10

Conductor Spacing Center to Center: .050

#### Insulation

#### Insulation Material:

Insulation Material	Wall Thickness (mm)
PVC - Polyvinyl Chloride	0.254

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

#### **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: .50

## **Mechanical Characteristics (Overall)**

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

Page 1 of 3

# **Detailed Specifications & Technical Data**

**METRIC MEASUREMENT VERSION** 



## 9R28010 Flat - Rainbow 9R280XX Series

Bulk Cable Weight:	17.858 Kg/Km
Min. Bend Radius/Minor Axis:	12.700 mm

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

#### Ap

Ap	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	
	MII Order #39 (China RoHS):	Yes	
Fla	ime Test		
	UL Flame Test:	VW-1	
Ple	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/m)
@ 1 MHz (GS)	0.95149
@ 1 MHz (GSG)	0.6562

#### Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/m)
@ 1 kHz (GSG)	59.058
@ 1 MHz (GS)	32.81
@ 1 MHz (GSG)	49.215

#### Nominal Velocity of Propagation:

Description	VP	(%)
	72	

#### **Nominal Delay:**

Delay (ns/m) 1.40 NS/FT. (GSG)

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 68.2 OHMS/1000 FT. MAX.

# Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
10	9.1868
20	15.7488
30	21.3265
40	27.2323
50	32.1538
60	39.372

# **Detailed Specifications & Technical Data**

#### METRIC MEASUREMENT VERSION



#### 9R28010 Flat - Rainbow 9R280XX Series

70	42.653	
80	45.934	
90	51.8398	
100	55.777	

#### 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
9R28010 000100	100 FT	6.600 LB	NONE		10 #28 PVC RAINBOW

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

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