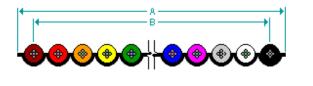
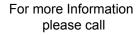
# **Detailed Specifications & Technical Data**



METRIC MEASUREMENT VERSION

### 9R28020 Flat - Rainbow 9R280XX Series





1-800-Belden1



# **General Description:**

Belden<sup>s</sup> .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 Characte	ristics (Overall)	
Conductor AWG:		
_	Stranding Conductor Materia	al
20 28	7x36 TC - Tinned Coppe	
Total Number of C	Conductors:	20
Conductor Spacir	ng Center to Center:	.050
Insulation Insulation Material:		
<b>Insulation Material</b>	Wall Thickness (mm)	
PVC - Polyvinyl Chlo	oride 0.254	
Insulation Resista		>10,000 Mega Ohms
Insulation Color Co	de 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 Materi	al:	
Outer Shield Mater	ial	
Unshielded		
Overall Cable		
Overall Nominal Thickness: Overall Nominal Width:		.036
		1.00
lechanical Chara	cteristics (Overall)	
Operating Tempe		-20°C To +105°C
Bulk Cable Weigh		35.717 Kg/Km
Min. Bend Radius		12.700 mm
		12.100 11111

# **Detailed Specifications & Technical Data**

METRIC MEASUREMENT VERSION



### 9R28020 Flat - Rainbow 9R280XX Series

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
ame Test	
UL Flame Test:	VW-1
enum/Non-Plenum	
Plenum (Y/N):	No

# **Electrical Characteristics (Overall)**

# Nom. Characteristic Impedance:

DescriptionImpedance (Ohm)(GS)150

(GSG) 105

#### Nom. Inductance:

DescriptionInductance (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
70	42.653
80	45.934

# **Detailed Specifications & Technical Data**



#### METRIC MEASUREMENT VERSION

### 9R28020 Flat - Rainbow 9R280XX Series

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
9R28020 000100	100 FT	2.600 LB	NONE		20 #28 PVC RAINBOW

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

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