# **Rainbow 8R280XX Series**

.050" Pitch, 28 AWG, Color-coded FEP (High Temperature)

### **Product Description**

Belden's .050" pitch, color-coded FEP flat cable allows for high and low temperature, low out-gassing and chemical resistant applications, improved electricals, and provides quick identification and circuit tracing, along with easy breakouts for circuit routing. Designed for mass-termination with standard IDC connectors, the cable is constructed of stranded 28 AWG (7x36) silver-plated copper conductors, color-coded FEP pre-insulated singles — laminated to a single clear FEP substrate. Thirteen various conductor counts are standard; other sizes are available upon request. The cable is UL approved and passes the IEEE 383, 70,000 BTU Flame Test.

**Color Code:** Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White, Black. Sequence is repeated as necessary.

**Application:** Internal wiring of appliances or electronic equipment. May be additionally marked "For 300V Peak Electronic Use Only."

## **Physical Specifications**

Conductor	28 AWG (7x36) Silver-plated Copper			
Insulation	.010" Nom. Wall Color-coded FEP			
Substrate	.010" Nom. Wall Clear FEP			
Pitch	.050″ ±.005″			
Temperature Rating	-70 to +150°C			
Flammability Rating	UL: VW-1; IEEE: 383 70,000 BTU			
UL Approval	File #E12683, Style 20468			
Packaging	100			

# **Electrical Specifications**

150V RMS
1A
68Ω/1000 ft.
>1 x 10 <sup>™</sup> Ω • 10 ft. (3m)
120Ω
10.5 pF/ft. (34.4 pF/m)
.18 μH/ft. (.59 μH/m)
1.3 ns/ft. (4.3 ns/m)

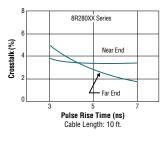
15.0

2.0 1.5

\*Test Configuration: G-S-G (ground-signal-ground).

## **Unbalanced Crosstalk**\*





#### 

30

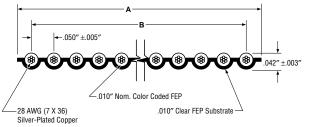
Frequency (MHz)

20

40 50 60 70 80 90 100

	No.	Dimensions			
Part No.	of	Width "A"		Span "B"	
	Cond.	Inch	mm	Inch	mm
8R28010	10	.50	12.70	.45 ±.007	11.43 ±.18
8R28014	14	.70	17.78	.65 ±.007	16.51 ±.18
8R28016	16	.80	20.32	.75 ±.011	19.05 ±.28
8R28020	20	1.00	25.40	.95 ±.011	24.13 ±.28
8R28025	25	1.25	31.75	1.20 ±.011	30.48 ±.28
8R28026	26	1.30	33.02	1.25 ±.011	31.75 ±.28
8R28034	34	1.70	43.18	1.65 ±.011	41.91 ±.28
8R28036	36	1.80	45.72	1.75 ±.015	44.45 ±.38
8R28037	37	1.85	46.99	1.80 ±.015	45.72 ±.38
8R28040	40	2.00	50.80	1.95 ±.015	49.53 ±.38
8R28050	50	2.50	63.50	2.45 ±.015	62.23 ±.38
8R28060	60	3.00	76.20	2.95 ±.015	74.93 ±.38
8R28064	64	3.20	81.28	3.15 ±.020	80.01 ±.51

## Dimensions





# **Rainbow 9R280XX Series**

.050" Pitch, 28 AWG, Color-coded PVC

### **Product Description**

Belden's .050" pitch, color-coded PVC flat cable allows for quick identification and circuit tracing, along with easy breakouts for circuit routing. Designed for mass-termination with standard IDC connectors. The cable is constructed of stranded 28 AWG (7x36) tinned copper conductors, color-coded PVC preinsulated singles — laminated to a single clear PVC substrate. Fourteen various conductor counts are standard; other sizes are available upon request. The cable is UL approved (CSA available upon request) and passes the VW-1 Vertical Wire Flame Test.

**Color Code:** Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White, Black. Sequence is repeated as necessary.

**Application:** Internal interconnection or internal wiring of electrical equipment.

### **Physical Specifications**

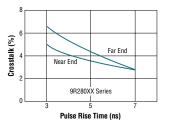
Conductor	28 AWG (7x36) Tinned Copper
Insulation	.010" Nom. Wall Color-coded PVC
Substrate	.010" Nom. Wall Clear PVC
Pitch	.050″ ±.005″
Temperature Rating	-20 to +105°C
Flammability Rating	UL: VW-1
UL Approval	File #E12663, Style 2884
CSA Approval	Available upon request
Packaging	100

### **Electrical Specifications**

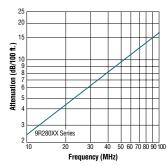
Voltage Rating	300V RMS
Current Rating	1A
Conductor Resistance	68Ω/1000 ft.
Insulation Resistance	>1 x 10¹⁰Ω • 10 ft. (3m)
Impedance*	105Ω
Capacitance* (@ 1 MHz)	15 pF/ft. (49 pF/m)
Inductance* (@ 1 MHz)	.20 μH/ft. (.66 μH/m)
Propagation Delay*	1.4 ns/ft. (4.6 ns/m)

\*Test Configuration: G-S-G (ground-signal-ground).

### **Unbalanced Crosstalk**\*

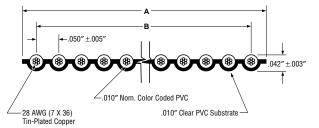


#### Attenuation\*



	No.	Dimensions			
Part No.	of Cond.	Width "A"		Span "B"	
		Inch	mm	Inch	mm
9R28010	10	.50	12.70	.45 ±.007	11.43 ±.18
9R28014	14	.70	17.78	.65 ±.007	16.51 ±.18
9R28016	16	.80	20.32	.75 ±.011	19.50 ±.28
9R28020	20	1.00	25.40	.95 ±.011	24.13 ±.28
9R28024	24	1.20	30.48	1.15 ±.011	29.21 ±.28
9R28025	25	1.25	31.75	1.20 ±.011	30.48 ±.28
9R28026	26	1.30	33.02	1.25 ±.011	31.75 ±.28
9R28034	34	1.70	43.18	1.65 ±.011	41.91 ±.28
9R28036	36	1.80	45.72	1.75 ±.015	44.45 ±.38
9R28037	37	1.85	46.99	1.80 ±.015	45.72 ±.38
9R28040	40	2.00	50.80	1.95 ±.015	49.53 ±.38
9R28050	50	2.50	63.50	2.45 ±.015	62.23 ±.38
9R28060	60	3.00	76.20	2.95 ±.015	74.93 ±.38
9R28064	64	3.20	81.28	3.15 ±.020	80.01 ±.51

### **Dimensions**



7.7