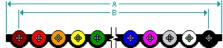
Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



8R28010 Flat - Rainbow 8R280XX Series







For more Information please call

1-800-Belden1



General Description:

Belden's .050" pitch, color-coded FEP 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.

.45 +/- .007

Physical Characteristics (Overall)

Conductor

AWG:

AWG Stranding Conductor Material	
28 7x36 SPC - Silver Plated Copper	
of Conductors:	
Conductor Spacing Center to Center:	

Conductor Spacing Outside Center to Outside Center:

Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)		
FEP - Fluorinated Ethylene Propylene	.010		
Substrate Thickness and Material:		.010" Clear FEP	
Insulation Resistance:		>100, 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

Overall Cable

Overall Nominal Thickness:	.042 +/003
Overall Nominal Width:	.50

Mechanical Characteristics (Overall)

Operating Temperature Range: $-70^{\circ}\text{C To } +150^{\circ}\text{C}$

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

UL AWM Style:	20468
UL Rating:	150°C, 150 V, VW-1
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):	07/01/2005

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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
IEEE Flame Test:	383 (70, 000 BTU)
Plenum/Non-Plenum	
Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Description	Impedance (Ohm)
(GS)	170
(GSG)	120

Nom. Inductance:

Description	Inductance (µH/ft)
@ 1 MHz (GS)	.26
@ 1 MHz (GSG)	.18

Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/ft)
@ 1 kHz (GS)	7.5
@ 1 kHz (GSG)	10.5
@ 1 MHz (GS)	7.5
@ 1 MHz (GSG)	10.5

Nominal Velocity of Propagation:

Description	VP (%)	
	78	

Nominal Delay:

Delay (ns/ft) 1.30 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	1.7
20	2.7
30	3.6
40	4.4
50	5.1
60	5.8
70	6.5
80	7.2
90	8
100	8.5

Max. Operating Voltage - UL:

Voltage 150 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	3.8	4.3
10 ft. sample length	5	3.2	2.4
10 ft. sample length	7	3.2	1.4

Notes (Overall)

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

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Put Ups and Colors:

Ship Weight Color Notes Item Desc Item # Putup

Revision Date: 12-11-2008

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product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.

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