



Product: [9R28014](#) 

Flat Rainbow Cable 9R280 Series, #28-14c, .050" Pitch

Product Description

Belden .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.

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Construction n x D	No. of Conductors
28	7x36	TC - Tinned Copper	Stranded	14
				4
				4

Conductor Count:14

Insulation

Material	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.010 in

Color 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	Brown
	Red
	Orange
	Yellow

Outer Shield Material

Material
Unshielded

Outer Jacket Material

Material	Nominal Wall Thickness
Clear PVC	0.036 in

Construction and Dimensions

Cond Spacing Center-Center:	0.050 +/- .003 in
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Cond Spacing Center-Center Outside:	.650 in +/- .006 in
OuterJacket1, Nominal Width:	0.700 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Conductor DCR Conductor Resistance
68.2 Ohm/1000ft	68.2 Ohm/1000ft
4 Ohm/1000ft	

Capacitance

Element	Nom. Capacitance Conductor to Conductor
@ 1 kHz (GSG)	18 pF/ft
@ 1 MHz (GS)	10 pF/ft
@ 1 MHz (GSG)	15 pF/ft

Inductance

Element	Nominal Inductance
@ 1 MHz (GS)	0.29 µH/ft
@ 1 MHz (GSG)	0.2 µH/ft

Impedance

Nominal Balanced Characteristic Impedance Description	Nominal Characteristic Impedance	Nominal Characteristic Impedance Description
(GS)	150 Ohm	(GS)
(GSG)	105 Ohm	(GSG)

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
10 MHz	2.8 dB/100ft
20 MHz	4.8 dB/100ft
30 MHz	6.5 dB/100ft
40 MHz	8.3 dB/100ft
50 MHz	9.8 dB/100ft
60 MHz	12 dB/100ft
70 MHz	13 dB/100ft
80 MHz	14 dB/100ft
90 MHz	15.8 dB/100ft
100 MHz	17 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.40 ns/ft	72 %

Unbalanced Crosstalk

Element	Typical Unbalanced NEXT %	Typical Unbalanced FEXT %	Typical Cross Talk Pulse Rise Time (ns)
10 ft. sample length	4.8	7	3 ns
10 ft. sample length	3.5	4.7	5 ns
10 ft. sample length	3	3	7 ns

High Freq

Frequency [MHz]
10 MHz
20 MHz
30 MHz
40 MHz
50 MHz
60 MHz
70 MHz
80 MHz
90 MHz
100 MHz

Current

Max. Recommended Current [A]

Per conductor @ 20°C: 1 A

Voltage**Dielectric Withstand Voltage**

2,000 V RMS

UL Voltage Rating

300 V RMS

Temperature Range

Operating Temp Range:

-20°C To +105°C

Mechanical Characteristics

Bulk Cable Weight:

17 lbs/1000ft

Min Bend Radius/Minor Axis:

0.5 in

Standards

UL Rating:

AWM 20932

UL AWM Style:

20932

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):

Yes

EU Directive 2003/11/EC (BFR):

Yes

EU Directive 2011/65/EU (ROHS II):

Yes

EU Directive 2012/19/EU (WEEE):

Yes

EU Directive 2015/863/EU:

Yes

EU Directive Compliance:

Yes

EU CE Mark:

Yes

EU RoHS Compliance Date (yyyy-mm-dd):

2005-10-01

CA Prop 65 (CJ for Wire & Cable):

Yes

MII Order #39 (China RoHS):

Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:

VW-1

UL voltage rating:

300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):

No

Part Number**Variants**

Item #	Color	UPC	Length
9R28014 000100	None	612825221821	100 ft

Product Notes

Notes:

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

History

Update and Revision:

Revision Number: 0.231 Revision Date: 08-22-2019

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