

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 383-1974, 70,000 BTU Flame Test.

Color Code: Brown, Red, Orange, Yellow, Green, Blue, Purple, 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

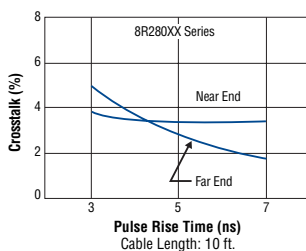
Conductor	28 AWG (7x36) Silver-plated Copper
Insulation	.010" Nom. Wall Color-coded FEP
Substrate	.010" Nom. Wall Clear FEP
Pitch	.050" ± .005"
Temperature Rating	-70 to +150°C
Flammability Rating	UL: VW-1; IEEE: 383-1974 70,000 BTU
UL Approval	File #E12683, Style 20468
Packaging	100

Electrical Specifications

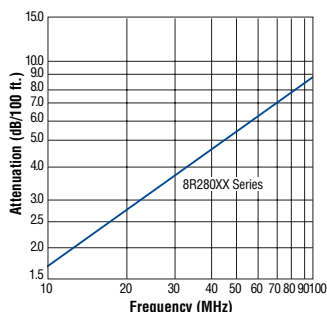
Voltage Rating	150V RMS
Current Rating	1A
Conductor Resistance	68.2Ω/1000 ft.
Insulation Resistance	>1 x 10 ¹¹ Ω • 10 ft. (3m)
Impedance*	120Ω
Capacitance* (@ 1 MHz)	10.5 pF/ft. (34.5 pF/m)
Inductance* (@ 1 MHz)	.18 μH/ft. (.59 μH/m)
Propagation Delay*	1.30 ns/ft. (4.3 ns/m)

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

Unbalanced Crosstalk*

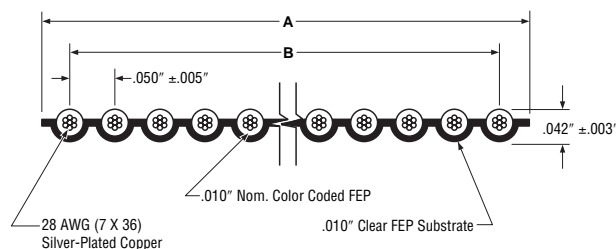


Attenuation*



Part No.	No. of Cond.	Dimensions			
		Width "A"		Span "B"	
		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
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



Vari-Twist® 8V280XX Series

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

Product Description

Belden's FEP Vari-Twist 8V280XX series allows for high and low temperature, low out-gassing, and chemical resistant applications, improved electricals, and provides quick identification and circuit tracing. The cable was designed to reduce crosstalk in the balanced mode by twisting the pairs but can be mass-terminated in the programmed flat sections with any standard IDC connector. To further reduce crosstalk, each adjacent pair is twisted in the opposite direction. The standard twist length is 18 inches followed by a 2 inch flat section of .050" spaced conductors. The cable consists of stranded 28 AWG (7x36) silver-plated copper, color-coded FEP pre-insulated singles — laminated to a single clear FEP substrate. Eight various conductor/pair counts are standard; other sizes are available upon request. The cable is UL approved and passes the IEEE 383-1974 70,000 BTU Flame Test.

Upon your request, Vari-Twist can also be manufactured to your own specific requirements whether that be longer or shorter twist sections and/or flat sections.

Color Code: Each pair consists of a Tan conductor paired with a color-coded conductor. *Color Sequence Each Terminating Section:* Brown/Tan, Red/Tan, Orange/Tan, Yellow/Tan, Green/Tan, Blue/Tan, Purple/Tan, Gray/Tan, White/Tan, Black/Tan. 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	
Twisted Pair Centers:	.100" Nom.
Conductor Centers in Flat:	.050" ± .005"
Pairs	1/2" Nom. Lay
	Adjacent Pairs have Opposite Direction Lay
Construction	18" of Twisted Pairs
	2" of Flat Section
Temperature Rating	-70 to +150°C
Flammability Rating	UL: VW-1; IEEE 383-1974 70,000 BTU
UL Approval	File #E12683, Style 20468
Packaging	100

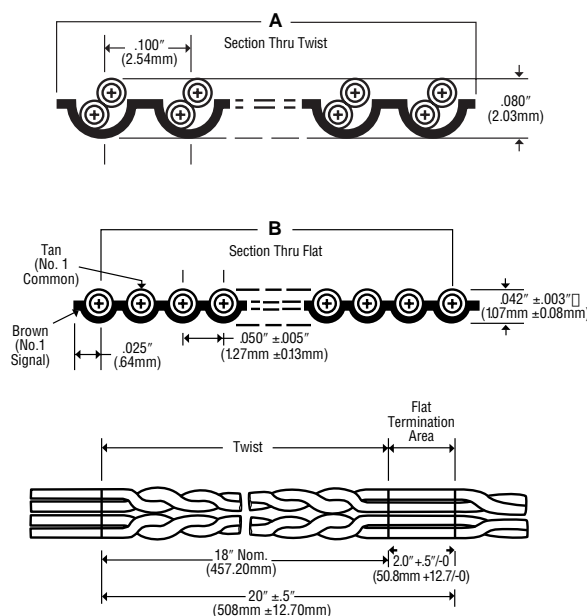
Electrical Specifications

Voltage Rating	150V RMS
Current Rating	1A
Conductor Resistance	68.2Ω/1000 ft.
Insulation Resistance	>1 x 10 ¹¹ Ω • 10 ft. (3m)
Impedance (Balanced)	145Ω
Impedance* (Unbalanced)	130Ω
Capacitance* (@ 1 MHz)	10.6 pF/ft. (34.78 pF/m)
Inductance* (@ 1 MHz)	.22 μH/ft. (.72 μH/m)
Propagation Delay*	1.32 ns/ft. (4.33 ns/m)

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

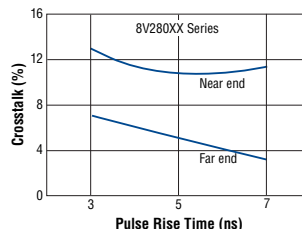
Part No.	No. of Pairs	Dimensions			
		Width "A"		Span "B"	
		Inch	mm	Inch	mm
8V28010	5	.50	12.70	.45 ±.012	11.43 ±.31
8V28014	7	.70	17.78	.65 ±.012	16.51 ±.31
8V28020	10	1.00	25.40	.95 ±.015	24.13 ±.38
8V28026	13	1.30	33.02	1.25 ±.015	31.75 ±.38
8V28036	18	1.80	45.72	1.75 ±.017	44.45 ±.43
8V28040	20	2.00	50.80	1.95 ±.017	49.53 ±.43
8V28060	30	3.00	76.20	2.95 ±.020	74.93 ±.51

Dimensions



NOTE: the transition area is included in the twisted section to assure a full 2 inches of flat termination area.

Unbalanced Crosstalk*



Attenuation*

