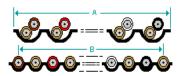
# **Detailed Specifications & Technical Data**

# **ENGLISH MEASUREMENT VERSION**



# 9V28050 Flat - Vari-Twist® 9V280XX Series





For more Information please call

1-800-Belden1



# **General Description:**

Belden's PVC Vari-Twist series was designed to reduce crosstalk in the balanced mode by twisting the pairs, but can be mass-terminated in the flat sections with standard IDC connectors.

# **Physical Characteristics (Overall)**

# Conductor

# AWG:

1	# Pairs	AWG	Stranding	Conductor Material
2	25	28	7x36	TC - Tinned Copper

Total Number of Conductors:	50
Conductor Spacing Center to Center Flat Section:	.050 +/005
Conductor Spacing Outside Center to Outside Center:	2.45 +/017

#### Insulation

#### Insulation Material:

# **Outer Shield**

### Outer Shield Material:



## **Overall Cable**

Overall Nominal Thickness Flat Section:	.042 +/003
Overall Nominal Thickness Twisted Section:	.080
Overall Nominal Width:	2.526
Overall Flat Section Length:	2 +.5/0
Overall Twisted Length:	18 in.
Flat Section Center to Center Spacing:	20 +/50

### Pair

### Pair Color Code Chart:

Number	Color		
1	Brown/Tan		
2	Red/Tan		
3	Orange/Tan		
4	Yellow/Tan		
5	Green/Tan		
6	Blue/Tan		
7	Purple/Tan		
8	Gray/Tan		
9	White/Tan		
10	Black/Tan		
Over 10 pair	Repeat as required		

## **Spacing**

Twisted Pair Spacing Center to Center: .100

# **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-20°C To +105°C	
Bulk Cable Weight:	71 lbs/1000 ft.	
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# **Detailed Specifications & Technical Data**





# 9V28050 Flat - Vari-Twist® 9V280XX Series

Min. Bend Radius/Minor Axis: 1.250 in. **Applicable Specifications and Agency Compliance (Overall) Applicable Standards & Environmental Programs UL Rating:** UL AWM Styles 1731, 2693, & 2697 EU Directive 2011/65/EU (ROHS II): EU CE Mark: Yes EU Directive 2000/53/EC (ELV): Yes EU Directive 2002/95/EC (RoHS): EU RoHS Compliance Date (mm/dd/yyyy): 10/01/2005 EU Directive 2002/96/EC (WEEE): Yes EU Directive 2003/11/EC (BFR): CA Prop 65 (CJ for Wire & Cable): Yes MII Order #39 (China RoHS): Yes Flame Test VW-1 **UL Flame Test:** Plenum/Non-Plenum Plenum (Y/N): No

# **Electrical Characteristics (Overall)**

Nom. Inductance:

Description	Inductance (µH/ft)		
@ 1 MHz	.24		

Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/ft)		
@ 1 kHz	20		
@ 1 MHz	16		

Nominal Velocity of Propagation:



Nominal Delay:



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	3.5
20	5.5
30	7.2
40	8.8
50	10.2
60	12
70	13
80	14.2
90	15
100	16

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Current
1 Amp per conductor @ 20°C

Nominal Balanced Characteristic Impedance:

Description Impedance (Ohm)
115

Nominal Unbalanced Characteristic Impedance:

Description Impedance (Ohm)

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# **Detailed Specifications & Technical Data**

## **ENGLISH MEASUREMENT VERSION**



## 9V28050 Flat - Vari-Twist® 9V280XX Series

2. 000 V RMS Dielectric Withstand Voltage:

Typical Balanced Crosstalk - dB Suppression:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Crosstalk (dB)
10 ft. sample length		10	100	35

#### Typical Unbalanced Crosstalk:

Description	Pulse Rise Time (NS) (MHz)	Near End % (MHz)	Far End % (MHz)
10 ft. sample length all grounds connected together.	3	5.8	5.2
10 ft. sample length all grounds connected together.	5	4	3.2
10 ft. sample length all grounds connected together.	7	2.5	2.8

#### Notes (Overall)

Notes: The transition area is included in the twisted length to assure a full 2 inches of flat termination area.

## **Kennedy Information (Overall)**

Construction: 18" of Twisted Pairs, 2" of Flat Section

## **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9V28050 000H100	100 FT	7.400 LB	NONE	E	25 PR #28 PVC VARI-TWIST

#### Notes:

E = MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'

Revision Number: 2 Revision Date: 11-08-2012

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Product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).

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