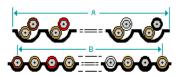
# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



# 9V28016 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:

# Pairs	AWG	Stranding	Conductor Material
8	28	7x36	TC - Tinned Copper

Total Number of Conductors:	16
Conductor Spacing Center to Center Flat Section:	.050 +/005
Conductor Spacing Outside Center to Outside Center:	.75 +/012

### Insulation

### Insulation Material:

PVC - Polyvinyl Chloride   0.018  Substrate Thickness and Material: .010	Insulation Resistance:	
PVC - Polyvinyl Chloride 0.018	Substrate Thickness and	l Material:
	PVC - Polyvinyl Chloride	0.018

# **Outer Shield**

### Outer Shield Material:



### **Overall Cable**

Overall Nominal Thickness Flat Section:	.042 +/003
Overall Nominal Thickness Twisted Section:	.080
Overall Nominal Width:	.826
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

Min. Bend Radius/Minor Axis:

### **Spacing**

Twisted Pair Spacing Center to Center: .100

# Mechanical Characteristics (Overall) Operating Temperature Range: -20°C To +105°C Bulk Cable Weight: 31 lbs/1000 ft.

1.250 in.

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# **Detailed Specifications & Technical Data**

# **ENGLISH MEASUREMENT VERSION**



# 9V28016 Flat - Vari-Twist® 9V280XX Series

App	olicable Specifications and Agency Compliance (Ov	verall)			
Ap	plicable Standards & Environmental Programs				
	UL Rating:	UL AWM Styles 1731, 2693, & 2697			
	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):	10/01/2005			
	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			
Fla	Flame Test				
	UL Flame Test:	VW-1			
Ple	num/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:

Description	VP (%)
	64

Nominal Delay:

Delay (ns/ft) 1.6 NS/FT.

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)
	100

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# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



# 9V28016 Flat - Vari-Twist® 9V280XX Series

Dielectric Withstand Voltage:

2, 000 V RMS

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
9V28016 000H100	100 FT	3.400 LB	NONE	E	8 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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