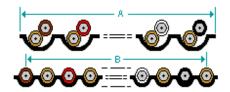
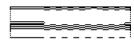
# **Detailed Specifications & Technical Data**

METRIC MEASUREMENT VERSION



### 9V28010 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	<b>Conductor Material</b>
5	28	7x36	TC - Tinned Copper

Total Number of Conductors: 10

Conductor Spacing Center to Center Flat Section: .050 +/- .005

Conductor Spacing Outside Center to Outside .45 +/- .012

Center:

### Insulation

### **Insulation Material:**

Insulation Material	Wall Thickness (mm)
PVC - Polyvinyl Chloride	0.457

Substrate Thickness and Material: .010

Insulation Resistance: >10,000 Mega Ohms

### **Outer Shield**

# Outer Shield Material:



### **Overall Cable**

Overall Nominal Thickness Flat Section:	.042 +/003
Overall Nominal Thickness Twisted Section:	.080
Overall Nominal Width:	.526
Overall Flat Section Length:	2 +.5/0
Overall Twisted Length:	457.200 mm
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

### **Spacing**

Twisted Pair Spacing Center to Center: .100

Page 1 of 3 01-30-2019

# **Detailed Specifications & Technical Data**

**METRIC MEASUREMENT VERSION** 



# 9V28010 Flat - Vari-Twist® 9V280XX Series

Mechanical Characteristics (Overall)	
Operating Temperature Range:	-20°C To +105°C
Bulk Cable Weight:	37.205 Kg/Km
Min. Bend Radius/Minor Axis:	31.750 mm

# **Applicable Specifications and Agency Compliance (Overall)**

### **Applicable Standards & Environmental Programs**

Applicable Standards & Environmental Programs		

# **Electrical Characteristics (Overall)**

# Nom. Inductance:

Description	Inductance (µH/m)
@ 1 MHz	0.78744

### Nom. Capacitance Conductor to Conductor:

Description		Capacitance (pF/m)
	@ 1 kHz	65.62
	@ 1 MHz	52.496

### Nominal Velocity of Propagation:

Description	VP	(%)
	64	

### Nominal Delay:

Delay (ns/m) 1.6 NS/FT.

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 68.2 OHMS/1000 FT. MAX.

### Nom. Attenuation:

Freg. (MHz)	Attenuation (dB/100m)
10	11.4835
20	18.0455
30	23.6232
40	28.8728
50	33 4662
60	39.372
70	42.653
80	46.5902
90	49.215
اعو	43.213

Page 2 of 3 01-30-2019

# **Detailed Specifications & Technical Data**

#### METRIC MEASUREMENT VERSION



### 9V28010 Flat - Vari-Twist® 9V280XX Series

100 52.496

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

1 Amp per conductor @ 20°C

Nominal Balanced Characteristic Impedance:

**Description Impedance (Ohm)** 

Nominal Unbalanced Characteristic Impedance:

Description Impedance (Ohm)

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
9V28010 000H100	100 FT	2.800 LB	NONE	E	5 PR #28 PVC VARI-TWIST

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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