

## 9L28320 Flat - Shielded Jacketed 9L283XX Series



For more Information  
please call

1-800-Belden1



### General Description:

The shielded jacketed 9L283XX series provides shielding from external electrical interference and allows for greater flexibility, ease of termination, while providing exterior protection from the environment.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Conductors	AWG	Stranding	Conductor Material
20	28	7x36	TC - Tinned Copper

Total Number of Conductors: 20

Conductor Spacing Center to Center: .050 +/- .002

Conductor Spacing Outside Center to Outside Center: .95 +/- .008

#### Insulation

##### Insulation Material:

Insulation Material	Wall Thickness (in.)
PVC - Polyvinyl Chloride	.010

Insulation Resistance: >10,000 Megaohms

#### Outer Shield

##### Outer Shield Material:

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape (Foil Side In)	100.000

##### Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
2-28	7x36	TC - Tinned Copper

#### Outer Jacket

##### Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.038

#### Overall Cable

Overall Nominal Thickness: .115 +/- .015

Overall Nominal Width: 1.070 +/- .035

### Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +105°C

Bulk Cable Weight: 78 lbs/1000 ft.

Min. Bend Radius/Minor Axis: 1.250 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

UL Rating: UL AWM Style 2651, 20081

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<b>CSA Specification:</b>	AWM II A 105°C 300 V
<b>CSA Rating:</b>	105°C, 300 V RMS, FT1
<b>EU Directive 2011/65/EU (ROHS II):</b>	Yes
<b>EU CE Mark:</b>	Yes
<b>EU Directive 2000/53/EC (ELV):</b>	Yes
<b>EU Directive 2002/95/EC (RoHS):</b>	Yes
<b>EU RoHS Compliance Date (mm/dd/yyyy):</b>	10/01/2005
<b>EU Directive 2002/96/EC (WEEE):</b>	Yes
<b>EU Directive 2003/11/EC (BFR):</b>	Yes
<b>CA Prop 65 (CJ for Wire &amp; Cable):</b>	Yes
<b>MII Order #39 (China RoHS):</b>	Yes

### Flame Test

<b>UL Flame Test:</b>	VW-1
<b>CSA Flame Test:</b>	FT1

### Plenum/Non-Plenum

<b>Plenum (Y/N):</b>	No
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## Surface Printing (Overall)

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Description	Impedance (Ohm)
(GSG) with shield grounded	45

### Nom. Inductance:

Description	Inductance (µH/ft)
@ 1 MHz (GSG) with shield grounded	.11

### Nom. Capacitance Conductor to Conductor:

Description	Capacitance (pF/ft)
@ 1 kHz (GSG) with shield grounded	70
@ 1 MHz (GSG) with shield grounded	50

### Nominal Velocity of Propagation:

Description	VP (%)
	60

### Nominal Delay:

Delay (ns/ft)
1.7 NS/FT. (GSG) with shield grounded

### Nom. Conductor DC Resistance:

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

### Nom. Attenuation:

Description	Freq. (MHz)	Attenuation (dB/100 ft.)
(GSG) with shield grounded	10	6
(GSG) with shield grounded	20	9.5
(GSG) with shield grounded	30	12.5
(GSG) with shield grounded	40	14.9
(GSG) with shield grounded	50	17.2
(GSG) with shield grounded	60	19
(GSG) with shield grounded	70	21.5
(GSG) with shield grounded	80	23
(GSG) with shield grounded	90	24.5
(GSG) with shield grounded	100	26

**Max. Operating Voltage - UL:**

Voltage
300 V RMS

**Max. Recommended Current:**

Current
1 Amp per conductor @ 20°C

**Dielectric Withstand Voltage:** 2,000 V RMS

**Typical Unbalanced Crosstalk:**

Description	Pulse Rise Time (NS) (MHz)	Near End % (MHz)	Far End % (MHz)
10 ft. sample length with ground connected to shield	3	1.5	2
10 ft. sample length with ground connected to shield	5	.9	1.5
10 ft. sample length with ground connected to shield	7	.7	1.2

**Notes (Overall)**

**Notes:** GSG=Ground-Signal-Ground Mode

**Polarity Identification (Overall)**

**Polarity Identification:** RED POLARITY STRIPE ON #1 CONDUCTOR

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9L28320 010100	100 FT	8.600 LB	BLACK	E	20 #28 PVC FS PVC RIBBON

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

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