

## 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

CSA Specification: AWM II A 105°C 300 V

CSA Rating: 105°C, 300 V RMS, FT1

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

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|                                   |     |
|-----------------------------------|-----|
| EU Directive 2003/11/EC (BFR):    | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MIL Order #39 (China RoHS):       | Yes |

## Flame Test

|                 |      |
|-----------------|------|
| UL Flame Test:  | VW-1 |
| CSA Flame Test: | FT1  |

## Plenum/Non-Plenum

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

## 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

**9L28320 Flat - Shielded Jacketed 9L283XX Series****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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