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1-800-Belden1



General Description:

Belden's .050" pitch, color-coded PVC flat cable allows for quick identification and circuit tracing, along with easy breakouts for circuit routing, and is designed for mass-termination with standard IDC connectors.

Physical Characteristics (Overall)

Conductor

AWG:

| # Conductors | AWG | Stranding | Conductor Material |
|--------------|-----|-----------|--------------------|
| 10 | 28 | 7x36 | TC - Tinned Copper |

Total Number of Conductors: 10

Conductor Spacing Center to Center: .050

Insulation

Insulation Material:

| Insulation Material | Wall Thickness (in.) |
|--------------------------|----------------------|
| PVC - Polyvinyl Chloride | 0.010 |

Insulation Resistance: >10,000 Mega Ohms

Insulation Color Code Chart:

| Number | Color |
|--------|--------|
| 1 | Brown |
| 2 | Red |
| 3 | Orange |
| 4 | Yellow |
| 5 | Green |
| 6 | Blue |
| 7 | Purple |
| 8 | Gray |
| 9 | White |
| 10 | Black |

Outer Shield

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|-----------------------|
| Clear PVC |

Overall Cable

Overall Nominal Thickness: .036

Overall Nominal Width: .50

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 12 lbs/1000 ft.

Min. Bend Radius/Minor Axis: 0.500 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

UL Rating: AWM 20932

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 |
| MIL Order #39 (China RoHS): | Yes |

Flame Test

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

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

| Description | Impedance (Ohm) |
|-------------|-----------------|
| (GS) | 150 |
| (GSG) | 105 |

Nom. Inductance:

| Description | Inductance (µH/ft) |
|---------------|--------------------|
| @ 1 MHz (GS) | .29 |
| @ 1 MHz (GSG) | .20 |

Nom. Capacitance Conductor to Conductor:

| Description | Capacitance (pF/ft) |
|---------------|---------------------|
| @ 1 kHz (GSG) | 18 |
| @ 1 MHz (GS) | 10 |
| @ 1 MHz (GSG) | 15 |

Nominal Velocity of Propagation:

| Description | VP (%) |
|-------------|--------|
| | 72 |

Nominal Delay:

| Delay (ns/ft) |
|-------------------|
| 1.40 NS/FT. (GSG) |

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 | 2.8 |
| 20 | 4.8 |
| 30 | 6.5 |
| 40 | 8.3 |
| 50 | 9.8 |
| 60 | 12 |
| 70 | 13 |
| 80 | 14 |
| 90 | 15.8 |
| 100 | 17 |

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 | 3 | 4.8 | 7 |
| 10 ft. sample length | 5 | 3.5 | 4.7 |
| 10 ft. sample length | 7 | 3 | 3 |

Notes (Overall)

Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

9R28010 Flat - Rainbow 9R280XX Series

Notes: GS=Ground-Signal Mode; GSG=Ground-Signal-Ground Mode

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|--------|-------------|-------|-------|--------------------|
| 9R28010 000100 | 100 FT | 6.600 LB | NONE | | 10 #28 PVC RAINBOW |

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