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1-800-Belden1



General Description:

Belden's .050" pitch gray ribbon cable was designed for general purpose electronic interconnect applications. The cable provides reliable mass-termination to standard IDC connectors.

Physical Characteristics (Overall)

Conductor

AWG:

| # Conductors | AWG | Stranding | Conductor Material |
|--------------|-----|-----------|--------------------|
| 40 | 28 | 7x36 | TC - Tinned Copper |

Total Number of Conductors: 40

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

Conductor Spacing Outside Center to Outside Center: 1.95 +/- .012

Insulation

Insulation Material:

| Insulation Material | Wall Thickness (mm) |
|--------------------------|---------------------|
| PVC - Polyvinyl Chloride | 0.254 |

Insulation Resistance: >10,000 Megaohms

Outer Shield

Outer Shield Material:

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

Overall Cable

Overall Nominal Thickness: .035 +/- .003

Overall Nominal Width: 2.00 +/- .012

Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +105°C

Bulk Cable Weight: 77.386 Kg/Km

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

UL AWM Style: 2651

UL Rating: 105°C, 300 V RMS, VW-1

CSA Specification: AWM I A 105°C 300 V FT1

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): | 07/01/2005 |
| 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 |

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) |
|-------------|-----------------|
| (GS) | 150 |
| (GSG) | 105 |

Nom. Inductance:

| Description | Inductance (µH/m) |
|---------------|-------------------|
| @ 1 MHz (GS) | 0.95149 |
| @ 1 MHz (GSG) | 0.6562 |

Nom. Capacitance Conductor to Conductor:

| Description | Capacitance (pF/m) |
|---------------|--------------------|
| @ 1 kHz (GSG) | 59.058 |
| @ 1 MHz (GS) | 32.81 |
| @ 1 MHz (GSG) | 49.215 |

Nominal Velocity of Propagation:

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

Nominal Delay:

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

Nom. Conductor DC Resistance:

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

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 10 | 9.1868 |
| 20 | 15.7488 |
| 30 | 21.3265 |
| 40 | 27.2323 |
| 50 | 32.1538 |
| 60 | 39.372 |
| 70 | 42.653 |
| 80 | 45.934 |
| 90 | 51.8398 |
| 100 | 55.777 |

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)

Notes: GS=Ground-Signal Mode; 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 |
|-----------------|-------|-------------|-------|-------|------------------------------|
| 9L28040 008H100 | 30 MT | 2.540 KG | GRAY | | 40 #28 STR PVC RIBBON(SMI80) |

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