Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



1829B Coax - Series 6

For more Information please call

1-800-Belden1



General Description:

Series 6, 18 AWG solid .040" bare copper-covered steel conductor, gas-injected foam polyethylene insulation, Duobond® II + aluminum braid shield (60% coverage), polyethylene jacket.

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Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|----------------------------------|-----------|
| 1 | 18 | Solid | BCCS - Bare Copper Covered Steel | 1.016 |

Total Number of Conductors:

Insulation

Insulation Material:

| Insulation Material | Dia. (mm) |
|--------------------------------------|-----------|
| Gas-injected FPE - Foam Polyethylene | 4.572 |

Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|---------|-------------------------|-------|---|--------------|
| 1 | Bonded Duofoil® | Tape | Bonded Aluminum Foil-Polyester Tape-Aluminum Foil | 100 |
| 2 | | Braid | AL - Aluminum | 60 |

Outer Shield Flooding Grease: CoreGuard®

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PE - Polyethylene

Overall Cable

Overall Nominal Diameter: 6.858 mm

Mechanical Characteristics (Overall)

| Operating Temperature Range: | -55°C To +80°C |
|-----------------------------------|----------------|
| Non-UL Temperature Rating: | 80°C |
| Bulk Cable Weight: | 34.229 Kg/Km |
| Max. Recommended Pulling Tension: | 560.473 N |
| Min. Bend Radius/Minor Axis: | 69.850 mm |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| EU Directive 2011/65/EU (ROHS II): | Yes |
|---------------------------------------|------------|
| EU CE Mark: | No |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 |
| 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 |
| Series Type: | Series 6 |

Suitability

Suitability - Burial: Yes

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Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm) 75.000

Nom. Inductance:

Inductance (µH/m) 0.318257

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m) 53.1522

Nominal Velocity of Propagation:

VP (%) 83

Nominal Delay:

Delay (ns/m) 3.9372

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 91.868

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 29.529

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 5 | 1.6405 |
| 55 | 4.5934 |
| 211 | 8.5306 |
| 500 | 13.4521 |
| 750 | 16.7331 |
| 862 | 18.0455 |
| 1000 | 19.686 |
| 1450 | 25.5918 |
| 1800 | 28.2166 |
| 2250 | 32.1538 |
| 3000 | 37.0753 |

Max. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 5 | 2.19827 |
| 55 | 5.2496 |
| 211 | 9.41647 |
| 500 | 14.6989 |
| 750 | 18.3408 |
| 862 | 19.6204 |
| 1000 | 21.4577 |
| 1450 | 26.248 |
| 1800 | 28.8728 |
| 2250 | 32.81 |
| 3000 | 39.0439 |

Max. Operating Voltage - Non-UL:

Voltage 350 V RMS

Minimum Structural Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. SRL (dB) |
|-------------------|------------------|---------------|
| 950 | 2250 | 15 |
| 2250 | 3000 | 10 |

Sweep Test

Sweep Testing: 950 MHz - 3 GHz

Put Ups and Colors:

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| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------|-------|---------------------|
| 1829B 0101000 | 1,000 FT | 25.000 LB | BLACK | С | #18 GIFHDLDPE SH PE |

Notes: C = CRATE REEL PUT-UP.

Revision Number: 5 Revision Date: 09-26-2012

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