



Product: [183092A](#)

ControlNet™, (1) 18 AWG Solid BCCS, FPE/PVC/PVC, Foil+Alum Braid Shld, Alum Armor, CL2R, CMR

[Request Sample](#)

Product Description

One 18 AWG solid bare copper-covered steel, foam polyethylene (FPE) insulation, Duobond® IV Quad Shield, PVC inner jacket, continuously corrugated aluminum armor, PVC outer jacket.

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | exposure to rodent, crush, or cut through force, harsh environment, factory automation, ControlNet™, Modbus II, Industrial Coax, Belden ControlNet cables provide maximum signal integrity and run length exceeding the high-speed, time-critical requirements necessary for ControlNet factory floor applications |
|------------------------|--|

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | Nominal Diameter | No. of Coax |
|-----|-----------|----------------------------------|------------------|-------------|
| 18 | Solid | BCCS - Bare Copper Covered Steel | 0.0403 in | 1 |

| | |
|------------------|---|
| Conductor Count: | 1 |
|------------------|---|

Insulation

| Material | Nominal Diameter |
|--------------------------|------------------|
| PE - Polyethylene (Foam) | 0.178 in |

Inner Jacket Material

| Material | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.298 in |

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] |
|-------|-------|--------------------|---------------------|--------------|
| Tape | 1 | Alum / Poly / Alum | Bonded Duofoil® | 100% |
| Braid | 2 | Aluminum | | 60% |
| Tape | 3 | Alum / Poly / Alum | Duofoil® | 100% |
| Braid | 4 | Aluminum | | 40% |

Outer Jacket Material

| Material | Nominal Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 0.605 in |

Construction and Dimensions

Armor

| Type of Armor | Material |
|-------------------------|----------|
| Continuously Corrugated | Aluminum |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR | Outer Conductor DCR |
|-----------------------|--------------------------|---------------------|
| 28 Ohm/1000ft | 3.6 Ohm/1000ft | 3.6 Ohm/1000ft |

Capacitance

| |
|---|
| Nom. Capacitance Conductor to Shield |
| 16.2 pF/ft |

Inductance

| |
|---------------------------|
| Nominal Inductance |
| 0.097 μ H/ft |

Impedance

| |
|---|
| Nominal Characteristic Impedance |
| 100 Ohm |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz | 0.35 dB/100ft |
| 2 MHz | 0.38 dB/100ft |
| 5 MHz | 0.45 dB/100ft |
| 10 MHz | 0.59 dB/100ft |
| 20 MHz | 0.86 dB/100ft |
| 50 MHz | 1.37 dB/100ft |
| 100 MHz | 1.97 dB/100ft |
| 200 MHz | 2.82 dB/100ft |
| 300 MHz | 3.48 dB/100ft |
| 400 MHz | 4.04 dB/100ft |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.28 ns/ft | 82% |

High Freq

| Frequency [MHz] | Min. SRL (Structural Return Loss) |
|-----------------|-----------------------------------|
| 1 MHz | 23 dB |
| 2 MHz | |
| 5 MHz | |
| 10 MHz | |
| 20 MHz | |
| 50 MHz | |
| 100 MHz | |
| 200 MHz | |
| 300 MHz | |
| 400 MHz | |

Voltage

| |
|--------------------------|
| UL Voltage Rating |
| 300 V RMS |

| | |
|-----------------------------------|-----------------------------|
| Electrical Characteristics Notes: | SRL Min 23dB (5MHz - 50MHz) |
|-----------------------------------|-----------------------------|

Temperature Range

| | |
|-----------------------|----------------|
| UL Temp Rating: | 75°C |
| Operating Temp Range: | -30°C To +75°C |

Mechanical Characteristics

| | |
|-----------------------------|---------|
| Max. Pull Tension: | 162 lbs |
| Min Bend Radius/Minor Axis: | 6.85 in |

Standards

| | |
|----------------------|-------------|
| NEC Articles: | Article 800 |
| NEC/(UL) Compliance: | CL2R, CM |
| RG Type: | 6/U Type |

Applicable Environmental and Other Programs

| | |
|------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2012/19/EU (WEEE): | Yes |
| EU Directive 2015/863/EU: | Yes |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| MII Order #39 (China RoHS): | Yes |

Suitability

| | |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

Flammability, LSOH, Toxicity Testing

| | |
|--------------------|------------------|
| UL Flammability: | UL Vertical Tray |
| UL voltage rating: | 300 V RMS |

Plenum/Non-Plenum

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

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.205 Revision Date: 06-01-2020 |
|----------------------|--|

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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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