



Part Number: 3092F

ControlNet™, (1) 20 AWG (105x40) TC, FPE/PVC,
Foil+Braid Shld, CMR

Product Description

One 20 AWG stranded (105x40) bare copper conductor, foam polyethylene insulation, Duobond IV® quad shield (100% coverage), PVC Jacket.

Product Specifications

Technical Specifications

Construction and Dimensions

Conductor:

| AWG | Stranding | Material | Nominal Diameter | No. of Coax |
|------------------------------------|-----------|------------------|------------------|-------------|
| 20 | 105x40 | BC - Bare Copper | 0.04 in | 1 |
| Total Number of Conductors: | | | | 1 |

Insulation:

| Material | Nominal Diameter |
|-------------------------|------------------|
| FPE - Foam Polyethylene | 0.183 in |

Outershield 1:

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

Outerjacket 1:

| Material | Nominal Diameter |
|--------------------------|--|
| PVC - Polyvinyl Chloride | 0.303 in |
| Print Legend: | CONTROLBUS(R) BY BELDEN - 3092F RG-6/U TYPE 75C QUAD SHIELD E108998 1C20 (UL) CL2R OR CMR OR C(UL) CMG---FT4 |

Electrical Characteristics

Conductor DCR:

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 10.5 Ohm/1000ft | 3.6 Ohm/1000ft |

Capacitance:

| Nom. Capacitance Conductor to Shield | |
|---|------------------------------------|
| 17 pF/ft | |
| Other Electrical Characteristic 1: | IEEE 802.4 MAP/IEEE 802.7 Mini-Map |

Impedance:

| Nominal Characteristic Impedance |
|----------------------------------|
| 75 Ohm |

High Frequency (Nominal/Typical):

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz | 0.36 db/100ft |
| 2 MHz | 0.47 db/100ft |
| 5 MHz | 0.8 db/100ft |
| 10 MHz | 1.2 db/100ft |
| 20 MHz | 2 db/100ft |
| 50 MHz | 3.2 db/100ft |
| 100 MHz | 4.6 db/100ft |
| 200 MHz | 6.5 db/100ft |
| 300 MHz | 8 db/100ft |
| 400 MHz | 9.3 db/100ft |

Delay:

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.29 ns/ft | 79 % |

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 | |
| 400 MHz | |
| 5 MHz | |

Inductance:

| Nominal Inductance |
|--------------------|
| 0.108 μ H/ft |

Screening:

| Frequency [MHz] | Shield Effectiveness | Shield Effectiveness Description |
|-----------------|----------------------|----------------------------------|
| 30 MHz | 92 dB | Unflexed |
| 30 MHz | 60 dB | After 1.5 million flexes |

Use

| | |
|----------------------------------|--------|
| Max Recommended Pulling Tension: | 35 lbs |
|----------------------------------|--------|

Safety

| | |
|-------------------|--------------|
| CSA Flammability: | FT4 |
| UL Flammability: | UL1666 Riser |

Temperature Range

| | |
|-----------------------|----------------|
| Operating Temp Range: | -40°C To +75°C |
|-----------------------|----------------|

Mechanical Characteristics

| | |
|-----------------------------|------|
| Min Bend Radius/Minor Axis: | 3 in |
| Min Flexing Radius: | 6 in |

Part Number

Standards

| | |
|-----------------------------------|----------------------------------|
| CA Prop 65 (CJ for Wire & Cable): | CA Prop 65 (CJ for Wire & Cable) |
| CEC/C(UL) Specification: | CEC/C(UL) Specification |
| MII Order #39 (China RoHS): | MII Order #39 (China RoHS) |
| NEC/(UL) Specification: | NEC/(UL) Specification |
| RG Type: | RG Type |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | EU CE Mark |

History

| | |
|--------|---|
| Notes: | CPE Jacket optional. Flex Life: 1.5 Million cycles @ 6.0" minimum bend radius. For Rockwell authorized Flexible ControlNet order YR28890 (Tinned Copper Braid Version). |
|--------|---|

Product Variants

| Part Number | Color | Put-Up Type | Length |
|---------------|-------|-------------|---------|
| 3092F 0101000 | BLACK | Reel | 1000 ft |
| 3092F 0105000 | BLACK | Reel | 5000 ft |
| 3092F | | | |

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