



Product: [3106A](#)

RS-485, 1 Pr, 22AWG, Str TC, PE Ins, with OS, 1C 22AWG Str, PVC Ins, OA TC Brd, PVC Jkt, CM, PLTC, Sun Res, Oil Resistant

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Product Description

RS-485, 120 Ohm, 1 pair 22AWG (7x30) tinned copper Datalene® insulation, with Foil Shield, 1 Conductor 22AWG (7x30) Tinned Copper, PVC Insulated, Overall 65% Tinned Copper Braid, PVC jacket, CM, PLTC, SUN RES and oil-resistant

Technical Specifications

Product Overview

Suitable Applications: harsh environment, IIoT, factory or process automation, video, audio, data communication, etc.

Construction Details

Conductor

| Element | Number of Element | AWG | Stranding | Material |
|--------------|-------------------|-----|-----------|--------------------|
| Pair(s) | 1 | 22 | 7x30 | TC - Tinned Copper |
| Conductor(s) | 1 | 22 | 7x30 | TC - Tinned Copper |

Insulation

| Element | Material | Thickness | Color Code | Notes |
|--------------|--------------------------|-----------|---|-------|
| Pair(s) | PE - Polyethylene (Foam) | 0.033 in | White/Orange Stripe & Orange/White Stripe | HDPE |
| Conductor(s) | PVC - Polyvinyl Chloride | 0.017 in | Blue/White Stripe | |

Inner Shield Material

| Element | Shield Type | Material | Coverage | Notes |
|---------|-------------|-------------------------|----------|------------------------------------|
| Pair(s) | Tape | Bi-Laminate (Alum+Poly) | 100% | Single conductor is not under tape |

Outer Shield Material

| Shield Type | Material | Coverage | Drainwire Type |
|--------------|--|------------|------------------|
| Tape + Braid | Bi-Laminate (Alum+Poly) + Tinned Copper (TC) | 100% + 65% | 22 AWG (7x30) TC |

Outer Jacket Material

| Material | Thickness | Nom. Diameter |
|--------------------------|-----------|---------------|
| PVC - Polyvinyl Chloride | 0.041 in | 0.300 in |

Cable Diameter (Nominal): 0.300 in

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedance | Nom. Velocity of Prop. | Max. Current |
|--------------|-------------------------------|-------------------------------|---|-------------------------------|------------------------|--------------------------------|
| Pair(s) | 14.7 Ohm/1000ft (48.2 Ohm/km) | 11 pF/ft (36 pF/m) | 20.9 pF/ft (68.6 pF/m) | 120 Ohm | 78% | 2.7 Amps per Conductor at 25°C |
| Conductor(s) | 14.7 Ohm/1000ft (48.2 Ohm/km) | | | | | |

Nom. Outer Shield DCR: 2.8 Ohm/1000ft

High Frequency (Nominal/Typical)

| Element | Frequency [MHz] | Nom. Insertion Loss |
|---------|-----------------|---------------------|
| Pair(s) | 1 MHz | 0.5 dB/100ft |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V (CM, PLTC) |

Mechanical Characteristics

Temperature

| UL Rating | Operating |
|-----------|----------------|
| 60°C | -20°C to +60°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 3.0 in | 3.0 in |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 65 lbs |
| Bulk Cable Weight: | 48 lbs/1000ft |

Standards and Compliance

| | |
|---------------------------------|---|
| Environmental Suitability: | Indoor, Sunlight Resistance, Oil Resistance |
| Flammability / Fire Resistance: | UL1685 UL Loading, FT1, IEC 60332-1-2 |
| NEC / UL Compliance: | Article 725, Article 800, CM, PLTC |
| CEC / C(UL) Compliance: | CM |
| CPR Euroclass: | Eca |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |

Product Notes

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| Notes: | Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR46721. |
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History

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| Update and Revision: | Revision Number: 0.390 Revision Date: 07-02-2021 |
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