



Product: [123107A](#)

RS485, 2 Pr #22 Str TC, PE Ins, OS+TC Brd, PVC Jkt, AIA Armor, PVC Jkt, CM, PLTC

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Product Description

RS-485, 2 Pair 22AWG (7x30) Tinned Copper, PE Insulation, Overall Beldfoil®+Tinned Copper Braid(65%) Shield, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket, CM, PLTC

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | exposure to rodent, crush, or cut through force, burial, serial communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc. within noisy environments over long distance, outdoor such as solar, lighting, etc. |
|------------------------|--|

Construction Details

Conductor

| Element | No. of Elements | Size | Stranding | Material |
|---------|-----------------|--------|-----------|--------------------|
| Pair(s) | 2 | 22 AWG | 7x30 | TC - Tinned Copper |

Insulation

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code | Notes |
|---------|--------------------------|--------------------|--------------------------|--|-------|
| Pair(s) | PE - Polyethylene (Foam) | 0.025 in (0.64 mm) | 0.079 in (2.0 mm) | White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe | HDPE |

Outer Shield

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

Inner Jacket

| Material | Nom. Thickness | Nom. Diameter |
|--------------------------|-------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.053 in (1.3 mm) | 0.350 in (8.89 mm) |

Armor

| Armor Type & Material | Armor Thickness | Armor Material Diameter |
|--------------------------------|--------------------|-------------------------|
| AIA - Aluminum Interlock Armor | 0.025 in (0.64 mm) | 0.560 in (14.2 mm) |

Outer Jacket

| Material | Nom. Thickness | Nom. Diameter |
|--------------------------|-------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.045 in (1.1 mm) | 0.690 in (17.5 mm) |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.690 in (17.5 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedence | Nom. Velocity of Prop. | Max. Current |
|------------------------|-------------------------------|-------------------------------|---|-------------------------------|------------------------|--------------------------------|
| Pair(s) | 18.7 Ohm/1000ft | 11 pF/ft (36 pF/m) | 20.9 pF/ft | 120 Ohm | 78% | 2.7 Amps per Conductor at 25°C |
| Nom. Outer Shield DCR: | 2.95 Ohm/1000ft (9.68 Ohm/km) | | | | | |

High Frequency (Nominal/Typical)

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

Voltage

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

Mechanical Characteristics

Temperature

| UL Temperature | Operating | Installation |
|----------------|----------------|----------------|
| 60°C | -40°C to +60°C | -20°C To +60°C |

Table Notes: -40C

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 8.5 in (220 mm) | 8.5 in (220 mm) |

Max. Pull Tension: 200 lbs (91 kg)

Bulk Cable Weight: 172 lbs/1000ft

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor, Outdoor, Sunlight Resistance |
| Flammability / Reaction to Fire: | UL 1685 UL Loading, IEEE 1202 |
| NEC / UL Compliance: | Article 725, Article 800, CM, PLTC |
| CEC / C(UL) Compliance: | CMG, HLBCD |
| 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) |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

History

Update and Revision: Revision Number: 0.402 Revision Date: 02-03-2025

Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC | Footnote |
|-----------------|-------|------------|----------|--------------|----------|
| 123107A 0105000 | Black | Reel | 5,000 ft | 612825109631 | C Z |

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