



Product: [3108A](#)

RS485, 3 Pr #22 Str TC, PE Ins, OS+TC Brd, PVC Jkt, CM, PLTC, Oil Resistant

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Product Description

RS-485, 3 Pair 22AWG (7x30) Tinned Copper, PE Insulation, Overall Beldfoil®+Tinned Copper Braid(65%) Shield, PVC Outer Jacket, CM, PLTC, and oil-resistant

Technical Specifications

Product Overview

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

Construction Details

Conductor

| Element | No. of Elements | Size | Stranding | Material |
|---------|-----------------|--------|-----------|--------------------|
| Pair(s) | 3 | 22 AWG | 7x30 | TC - Tinned Copper |

Insulation

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code | Notes |
|---------|--------------------------|--------------------|--------------------------|---|-------|
| Pair(s) | PE - Polyethylene (Foam) | 0.023 in (0.58 mm) | 0.075 in (1.9 mm) | White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe, White/Green Stripe & Green/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% | |

Outer Jacket

| Material | Nom. Thickness | Nom. Diameter |
|--------------------------|-------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.053 in (1.3 mm) | 0.374 in (9.50 mm) |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.374 in (9.50 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) | 18.2 Ohm/1000ft | 11 pF/ft (36 pF/m) | 20.9 pF/ft | 120 Ohm | 78% | 4.2 Amps per Conductor at 30°C |

| | |
|------------------------|---------------------------------|
| Nom. Outer Shield DCR: | 3.576 Ohm/1000ft (11.73 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 (CM, PLTC) |

Mechanical Characteristics

Temperature

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

Bend Radius

| Stationary Min. | Installation Min. |
|---------------------|---------------------|
| 4.488 in (114.0 mm) | 4.488 in (114.0 mm) |

| | |
|--------------------|----------------|
| Max. Pull Tension: | 90 lbs (41 kg) |
| Bulk Cable Weight: | 63 lbs/1000ft |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor, Outdoor, Sunlight Resistance, Oil Resistance |
| Flammability / Reaction to Fire: | UL 1685 UL Loading, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca |
| NEC / UL Compliance: | Article 725, Article 800, CM, PLTC |
| CEC / C(UL) Compliance: | CM |
| 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) |
| UK Regulation Compliance: | UKCA Mark |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

Product Notes

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| Notes: | Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17. For CPE jacketed version order YR45287. |
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History

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| Update and Revision: | Revision Number: 0.549 Revision Date: 04-30-2024 |
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Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 3108A 0101000 | Black | Reel | 1,000 ft | 612825141730 | C |
| 3108A 0102000 | Black | Reel | 2,000 ft | 612825141747 | C |
| 3108A 0105000 | Black | Reel | 5,000 ft | 612825141754 | |

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