



**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

 [Request Sample](#)

## Product Description

RS-485, 120 Ohm, 1 pair 22AWG (7x30) tinned copper Datalene® insulaton, 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      | No. of Elements | Size   | Stranding | Material           |
|--------------|-----------------|--------|-----------|--------------------|
| Pair(s)      | 1               | 22 AWG | 7x30      | TC - Tinned Copper |
| Conductor(s) | 1               | 22 AWG | 7x30      | TC - Tinned Copper |

#### Insulation

| Element      | Material                 | Nom. Thickness     | Nom. Insulation Diameter | Color Code                                | Notes |
|--------------|--------------------------|--------------------|--------------------------|-------------------------------------------|-------|
| Pair(s)      | PE - Polyethylene (Foam) | 0.033 in (0.84 mm) | 0.095 in (2.4 mm)        | White/Orange Stripe & Orange/White Stripe | HDPE  |
| Conductor(s) | PVC - Polyvinyl Chloride | 0.017 in (0.43 mm) | 0.062 in (1.6 mm)        | Blue/White Stripe                         |       |

#### 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 | 0.047 in (1.2 mm) | 0.310 in (7.87 mm) |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.310 in (7.87 mm) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Electricals

| Element      | Nom. Conductor DCR            | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedence | Nom. Inductance          | Nom. Velocity of Prop. | Max. Current                 |
|--------------|-------------------------------|-------------------------------|-------------------------------------------------|-------------------------------|--------------------------|------------------------|------------------------------|
| Pair(s)      | 18.2 Ohm/1000ft               | 11 pF/ft (36 pF/m)            | 20.9 pF/ft (68.6 pF/m)                          | 120 Ohm                       | 0.203 µH/ft (0.666 µH/m) | 78%                    | 6 Amps per Conductor at 30°C |
| Conductor(s) | 18.2 Ohm/1000ft (59.7 Ohm/km) |                               |                                                 |                               |                          |                        | 6 Amps per Conductor at 30°C |

|                                      |                                 |
|--------------------------------------|---------------------------------|
| Nom Outer Shield DCR@Cond DCR1-cnrv: | 4.544 Ohm/1000ft (14.91 Ohm/km) |
|--------------------------------------|---------------------------------|

#### High Frequency (Nominal/Typical)

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

#### Voltage

|                                   |
|-----------------------------------|
| <a href="#">UL Voltage Rating</a> |
|-----------------------------------|

300 V (CM, PLTC)

Mechanical Characteristics

Temperature

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

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 3.6 in (91 mm)  | 3.6 in (91 mm)    |

|                    |                      |
|--------------------|----------------------|
| Max. Pull Tension: | 75.26 lbs (34.14 kg) |
| Bulk Cable Weight: | 48 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; CPR UKCA Class: 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                                                                                                                 |

Product Notes

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

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.594 Revision Date: 09-07-2025 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length   | UPC/EAN       | Footnote |
|---------------|-------|------------|----------|---------------|----------|
| 3106A.00152   | Black | Reel       | 152 m    | 8719605005892 |          |
| 3106A.00305   | Black | Reel       | 305 m    | 8719605005915 |          |
| 3106A 010500  | Black | Reel       | 500 ft   | 612825141662  | C        |
| 3106A 0101000 | Black | Reel       | 1,000 ft | 612825141655  | C        |
| 3106A.001525  | Black | Reel       | 1,525 m  | 8719605005908 |          |
| 3106A 0105000 | Black | Reel       | 5,000 ft | 612825141679  | C N      |

|           |                                                                                         |
|-----------|-----------------------------------------------------------------------------------------|
| Footnote: | C - CRATE REEL PUT-UP., N - FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN. |
|-----------|-----------------------------------------------------------------------------------------|

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