



**Product:** [3107ELW](#)

RS-485, 2PR #22 Str TC, PO ins, F/B, LSNH Jkt, Cca

### Product Description

RS-485, 2 Pair AWG 22 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, Foil + Braid(s) shielding, LSZH / FRNC jacket, CPR Cca

### Technical Specifications

#### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | Instrumentation and computer cable. For EIA RS-485 transmissions applications |
|------------------------|---|

#### 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   |
|---------|--------------------------|--------------------|--------------------------|--|
| Pair(s) | PE - Polyethylene (Foam) | 0.65 mm (0.026 in) | 2.04 mm (0.0803 in)      | White & Orange, Orange & White, White & Blue, Blue & White |

##### 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    |
|---|---------------------|------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 1.35 mm (0.0531 in) | 8.9 mm (0.35 in) |

|                                   |                  |
|-----------------------------------|------------------|
| Overall Cable Diameter (Nominal): | 8.9 mm (0.35 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) | 48.2 Ohm/km (14.7 Ohm/1000ft) | 36.1 pF/m (11.0 pF/ft)        | 68.6 pF/m                                       | 120 Ohm                       | 78%                    | 2.7 Amps per Conductor |

|                        |                             |
|------------------------|-----------------------------|
| Nom. Outer Shield DCR: | 5.9 Ohm/km (1.8 Ohm/1000ft) |
|------------------------|-----------------------------|

##### High Frequency (Nominal/Typical)

| Element | Frequency [MHz] | Nom. Insertion Loss (Attenuation) |
|---------|-----------------|-----------------------------------|
| Pair(s) | 1               | 1.64 dB/100m (0.500 dB/100ft)     |

##### Voltage

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

#### Mechanical Characteristics

## Temperature

| Operating      | Installation   | Storage        |
|----------------|----------------|----------------|
| -45°C To +80°C | -15°C To +80°C | -45°C To +80°C |

## Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 45 mm (1.8 in)  | 89 mm (3.5 in)    |

|                    |                          |
|--------------------|--------------------------|
| Max. Pull Tension: | 290 N (65 lbf)           |
| Bulk Cable Weight: | 89 kg/km (60 lbs/1000ft) |

## Standards and Compliance

|                                  |  |
|----------------------------------|--|
| Environmental Suitability:       | Indoor - Euroclass Cca, Indoor, Non-Halogenated, Sunlight Resistance   |
| Flammability / Reaction to Fire: | IEC 60332-1-2  |
| CPR Compliance:                  | CPR Euroclass: Cca-s1,d1,a1  |
| ISO/IEC Compliance:              | IEC 61034-2 - Smoke Density Min Transmittance = 60%  |
| CENELEC Compliance:              | EN 50290-2-20  |
| European Halogen Free Standards: | IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3 |
| European Directive Compliance:   | EU CE Mark   |
| UK Regulation Compliance:        | UKCA Mark  |
| Other Standard Compliance(s):    | DMX-512  |

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.153 Revision Date: 04-08-2025 |
|----------------------|--|

## Part Numbers

### Variants

| Item #        | Color | Putup Type | Length | EAN           |
|---------------|-------|------------|--------|---------------|
| 3107ELW.00305 | Black | Reel       | 305 m  | 8719605183538 |
| 3107ELW.00500 | Black | Reel       | 500 m  | 8719605183545 |

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