



Product: [82841](#)

RS485, 1 Pr #24 Str TC, FEP Ins, OS+TC Brd, PVC Jkt, CMP

### Product Description

RS-485, 1 Pair 24AWG (7x32) Tinned Copper, FEP Insulation, Overall Beldfoil®+Tinned Copper Braid(90%) Shield, PVC Outer Jacket, CMP

### Technical Specifications

#### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | RS-485, POS; Computer communications; Low Voltage Analog Signals (4-20ma, 0-10v, ...); Low Voltage Digital Control (24v, ...); Line Level Audio; Panel Wiring; serial communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc. within noisy environments over long distance, etc. |
|------------------------|---|

#### Construction Details

##### Conductor

| Element | No. of Elements | Size   | Stranding | Material           |
|---------|-----------------|--------|-----------|--------------------|
| Pair(s) | 1               | 24 AWG | 7x32      | TC - Tinned Copper |

##### Insulation

| Element | Material                                    | Nom. Thickness     | Nom. Insulation Diameter | Color Code                            |
|---------|---|--------------------|--------------------------|---------------------------------------|
| Pair(s) | FEP - Fluorinated Ethylene Propylene (Foam) | 0.025 in (0.64 mm) | 0.074 in (1.9 mm)        | White/Blue Stripe & Blue/White Stripe |

##### Outer Shield

| Shield Type | Material                | Coverage | Drainwire Type   |
|-------------|-------------------------|----------|------------------|
| Tape        | Bi-Laminate (Alum+Poly) | 100%     | 24 AWG (7x32) TC |
| Braid       | Tinned Copper (TC)      | 90%      |                  |

##### Outer Jacket

| Material                 | Nom. Thickness     | Nom. Diameter      |
|--------------------------|--------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.015 in (0.38 mm) | 0.204 in (5.18 mm) |

Overall Cable Diameter (Nominal): 0.204 in (5.18 mm)

#### 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) | 24 Ohm/1000ft      | 12 pF/ft (39 pF/m)            | 22 pF/ft  | 120 Ohm                       | 76%                    | 4 Amps per Conductor at 25°C |

Nom. Outer Shield DCR: 3.1 Ohm/1000ft (10 Ohm/km)

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

| Element | Frequency [MHz] | Nom. Insertion Loss (Attenuation) |
|---------|-----------------|-----------------------------------|
| Pair(s) | 1               | 0.6 dB/100ft                      |

##### Voltage

| UL Voltage Rating |
|-------------------|
| 300 V (CMP)       |

#### Mechanical Characteristics

## Temperature

| UL Temperature | Operating    |
|----------------|--------------|
| 75°C           | 0°C to +75°C |

## Bend Radius

| Stationary Min.   | Installation Min. |
|-------------------|-------------------|
| 2.25 in (57.2 mm) | 2.25 in (57.2 mm) |

|                    |                    |
|--------------------|--------------------|
| Max. Pull Tension: | 45.7 lbs (20.7 kg) |
| Bulk Cable Weight: | 26 lbs/1000ft      |

## Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Indoor  |
| Flammability / Reaction to Fire: | NFPA 262, UL 910 (Plenum), FT6, IEC 60332-1-2   |
| CPR Compliance:                  | CPR Euroclass: Eca  |
| NEC / UL Compliance:             | Article 800, CMP  |
| CEC / C(UL) Compliance:          | CMP   |
| 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)   |
| Non-Plenum Number:               | 9841, 9841ZH  |

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.547 Revision Date: 02-03-2025 |
|----------------------|--|

## Part Numbers

### Variants

| Item #        | Color   | UPC          | Footnote |
|---------------|---------|--------------|----------|
| 82841 8771000 | Natural | 612825198161 | C        |
| 82841 877500  | Natural | 612825198178 |          |
| 82841 8775000 | Natural | 612825198185 |          |

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