



Product: [9841](#)

RS485, 1 Pr #24 Str TC, PE Ins, OS+TC Brd, PVC Jkt, CM

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Product Description

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

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) | PE - Polyethylene | 0.023 in (0.58 mm) | 0.068 in (1.7 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 | 0.035 in (0.89 mm) | 0.232 in (5.89 mm) |

|                                   |                     |
|-----------------------------------|---------------------|
| Table Notes:                      | Jacket OD +/- 0.020 |
| Overall Cable Diameter (Nominal): | 0.232 in (5.89 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) | 24 Ohm/1000ft      | 12.8 pF/ft (42.0 pF/m)        | 23 pF/ft  | 120 Ohm                       | 66%                    | 2.1 Amps per Conductor at 25°C (10°C Temperature Rise) |

|                        |                            |
|------------------------|----------------------------|
| Nom. Outer Shield DCR: | 3.4 Ohm/1000ft (11 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 (CM), 30 V (UL AWM 2919) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating      |
|----------------|----------------|
| 80°C           | -30°C to +80°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 2.5 in (64 mm)  | 2.5 in (64 mm)    |

|                    |                    |
|--------------------|--------------------|
| Max. Pull Tension: | 72.3 lbs (32.8 kg) |
| Bulk Cable Weight: | 36 lbs/1000ft      |

Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Indoor  |
| 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 800, CM   |
| AWM Compliance:                  | AWM 2919  |
| 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)   |
| Other Standard Compliance(s):    | DMX-512   |
| Plenum Number:                   | 82841, 89841  |
| Non-Plenum Number:               | 9841ZH  |

History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.689 Revision Date: 03-27-2025 |
|----------------------|--|

Part Numbers

Variants

| Item #        | Color  | Putup Type | Length    | UPC/EAN       | Footnote |
|---------------|--------|------------|-----------|---------------|----------|
| 9841.0030     | Chrome | Reel       | 30 m      | 8719605022745 |          |
| 9841 060100   | Chrome | Reel       | 100 ft    | 612825259442  |          |
| 9841.019999   | Chrome | Reel       | 151 m     | 8719605022806 |          |
| 9841.01152    | Chrome | Reel       | 152 m     | 8719605022769 |          |
| 9841.01305    | Chrome | Reel       | 305 m     | 8719605022790 |          |
| 9841 060500   | Chrome | Reel       | 500 ft    | 612825259473  | C        |
| 9841 0601000  | Chrome | Reel       | 1,000 ft  | 612825259459  | C        |
| 9841.011000   | Chrome | Reel       | 1,000 m   | 8719605022752 |          |
| 9841.011525   | Chrome | Reel       | 1,525 m   | 8719605022776 |          |
| 9841.012000   | Chrome | Reel       | 2,000 m   | 8719605022783 |          |
| 9841 0605000  | Chrome | Reel       | 5,000 ft  | 612825259480  |          |
| 9841 06010000 | Chrome | Reel       | 10,000 ft | 612825259466  | C        |
| 9841.03305    | Violet | Reel       | 305 m     | 8719605022837 |          |
| 9841.031000   | Violet | Reel       | 1,000 m   | 8719605022820 |          |
| 9841.02305    | Yellow | Reel       | 305 m     | 8719605022813 |          |

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