



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: 0.558 Revision Date: 02-15-2024 |
|----------------------|--------------------------------------------------|

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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