



Product: <u>9841</u> ☑

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

Request Sample

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 | Number of Element | Size | Stranding | Material |
|---------|-------------------|--------|-----------|--------------------|
| Pair(s) | 1 | 24 AWG | 7x32 | TC - Tinned Copper |

Insulation

| Element | Material | Nom. Thickness | Color Code |
|---------|-------------------|--------------------|---------------------------------------|
| Pair(s) | PE - Polyethylene | 0.023 in (0.58 mm) | White/Blue Stripe & Blue/White Stripe |

Outer Shield

| Shield Type | Material | Coverage | Drainwire Type |
|-------------|-------------------------|----------|------------------|
| Таре | 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) |
| Overall Cable Diameter (Nominal): | 0.232 in | |

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Characteristic Impedence | Nom. Velocity of Prop. | Max. Current |
|---------|---------------------------------------|----------------------------------|---|-----------------------------|---------------------------|--|
| Pair(s) | 24 Ohm/1000ft | 12.8 pF/ft | 23 pF/ft | 120 Ohm | 66% | 2.1 Amps per Conductor at 25°C (10°C Temperature Rise) |
| Nom. Ou | Nom. Outer Shield DCR: 3.4 Ohm/1000ft | | | | | |

High Frequency (Nominal/Typical)

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

Voltage

UL Voltage Rating 300 V (CM), 30 V (UL AWM 2919)

Mechanical Characteristics

Temperature

| UL Temperature | Operating |
|--------------------|----------------|
| 80°C (UL AWM 2919) | -30°C to +80°C |

Bend Radius

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

Standards and Compliance

| Environmental Suitability: | Indoor |
|-----------------------------------|---|
| Flammability / Reaction to Fire: | UL1685 (UL Loading), IEC 60332-1-2 |
| NEC / UL Compliance: | Article 800, CM |
| AWM Compliance: | 2919 |
| CEC / C(UL) Compliance: | СМ |
| CPR Euroclass: | Eca |
| 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) |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Plenum Number: | 82841, 89841 |
| Non-Plenum Number: | 9841ZH |

History

| Update and Revision: | Revision Number: 0.420 Revision Date: 12-15-2021 |
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