



Product: <u>82841</u> ☑

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

Insulation

| Element | Material | Nom. Thickness | Color Code | |
|---------|---|--------------------|---------------------------------------|--|
| Pair(s) | FEP - Fluorinated Ethylene Propylene (Foam) | 0.025 in (0.64 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 | 0.015 in (0.38 mm) | 0.204 in (5.18 mm) |
| Overall Cable Diameter (Nominal): | 0.204 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 pF/ft | 22 pF/ft | 120 Ohm | 76% | 4 Amps per Conductor at 25°C |
| Nom. Ou | Nom. Outer Shield DCR: 3.1 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 (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 |

Standards and Compliance

| Environmental Suitability: | Indoor | |
|-----------------------------------|---|--|
| Flammability / Reaction to Fire: | IFPA 262 Plenum Flame Test (UL910), FT6, IEC 60332-1-2 | |
| NEC / UL Compliance: | Article 800, CMP | |
| CEC / C(UL) Compliance: | CMP | |
| 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) | |
| Non-Plenum Number: | 9841, 9841ZH | |

History

| Update and Revision: | Revision Number: 0.408 Revision Date: 12-15-2021 |
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