



Product: [89841](#)

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

Request Sample

Product Description

RS-485, 1 Pair 24AWG (7x32) Tinned Copper, FEP Insulation, Overall Beldfoil®+Tinned Copper Braid(90%) Shield, FEP 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 |
|--------------------------------------|--------------------|--------------------|
| FEP - Fluorinated Ethylene Propylene | 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 |
|----------------|-----------------|
| 200°C | -70°C to +200°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: | 27 lbs/1000ft |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor, Oil Resistance |
| 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 |

Product Notes

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| Notes: | Oil and Gas Resistant |
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History

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| Update and Revision: | Revision Number: 0.570 Revision Date: 04-28-2023 |
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Part Numbers

Variants

| Item # | Color | UPC | Footnote |
|---------------|-------|--------------|----------|
| 89841 0021000 | Red | 612825221302 | C |
| 89841 002500 | Red | 612825221319 | |
| 89841 0025000 | Red | 612825221326 | |

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