



# Product: <u>9844</u> 2

# RS485, 4 Pr #24 Str TC, PE Ins, OS+TC Brd, PVC Jkt, CM

# Product Description

RS-485, 4 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) | 4                 | 24 AWG | 7x32      | TC - Tinned Copper |

#### Insulation

| Element | Material             | Nom. Thickness        | Color Code   |
|---------|----------------------|-----------------------|--|
| Pair(s) | PE -<br>Polyethylene | 0.022 in (0.56<br>mm) | White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe, White/Green Stripe & Green/White Stripe, White/Brown Stripe & Brown/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) | 0.390 in (9.91 mm) |
| Overall Cable Diameter (Nominal): | 0.390 in           |                    |

# **Electrical Characteristics**

# Electricals

| Element  | Nom. Conductor<br>DCR                 | Nom. Capacitance<br>Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds +<br>Shield) | Characteristic<br>Impedence | Nom. Velocity of<br>Prop. | Max. Current                      |
|----------|---------------------------------------|----------------------------------|--|-----------------------------|---------------------------|-----------------------------------|
| Pair(s)  | 24 Ohm/1000ft                         | 12.8 pF/ft                       | 23 pF/ft   | 120 Ohm                     | 66%                       | 1.54 Amps per Conductor at<br>25℃ |
| Nom. Out | Nom. Outer Shield DCR: 2.1 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 (CM), 30 V (UL AWM 2919)

#### Temperature

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

#### Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 4 in (100 mm)   | 4 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)<br>Compliance:        | СМ  |
| CPR Euroclass:                    | Fca   |
| European Directive<br>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)   |

# History

Update and Revision: Revision Number: 0.360 Revision Date: 12-15-2021

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