



Part Number: 9842

RS-485, (2 pr) 24 AWG (7x32) TC, PE/PVC, Foil+TC Braid Shld, CM, 120Ω

Product Description

Two 24 AWG pairs stranded (7x32) tinned copper conductors, polyethylene insulation, twisted pairs, overall Beldfoil® (100% coverage) + tinned copper braid shield (90% coverage), 24 AWG stranded tinned copper drain wire, PVC jacket.

Technical Specifications

Product Overview

| | |
|------------------------|-----------------|
| Suitable Applications: | RS-485, DMX-512 |
|------------------------|-----------------|

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | No. of Conductors | No. of Pairs |
|-----|-----------|--------------------|-------------------|--------------|
| 24 | 7x32 | TC - Tinned Copper | 4 | 2 |

| | |
|------------------------|--------|
| Conductor Count: | 4 |
| Total Number of Pairs: | 2 |
| Conductor Size: | 24 AWG |

Insulation

| Material | Nominal Wall Thickness |
|-------------------|------------------------|
| PE - Polyethylene | 0.022 in |

Color Chart

| Number | Color |
|--------|-----------------------------|
| 1 | White/Blue & Blue/White |
| 2 | White/Orange & Orange/White |

Outer Shield Material

| Type | Layer | Material | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|-------|-------|--------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | 1 | Aluminum/Polyester | Beldfoil® | 100 % | TC - Tinned Copper | 24 | 7x32 mm |
| Braid | 2 | TC - Tinned Copper | | 90 % | | | |

Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.34 in | 0.035 in |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 24 Ohm/1000ft | 2.2 Ohm/1000ft |

Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 12.8 pF/ft | 23 pF/ft |

Impedance

Nominal Characteristic Impedance

120 Ohm

High Frequency (Nominal/Typical)**Frequency [MHz] | Nom. Insertion Loss**

1 MHz | 0.6 dB/100m

Delay**Max. Delay Skew | Nominal Delay | Nominal Velocity of Propagation (VP) [%]**

66 ns/100m | 1.54 ns/ft | 66 %

Current**Max. Recommended Current [A]**

Per conductor @ 25°C: 2.1 A

Voltage**UL Voltage Rating**

300 V RMS

Temperature Range

| | |
|-----------------------|----------------|
| UL Temp Rating: | 80°C |
| Operating Temp Range: | -30°C To +80°C |

Mechanical Characteristics

| | |
|----------------------------------|---------------|
| Bulk Cable Weight: | 49 lbs/1000ft |
| Max Recommended Pulling Tension: | 87 lbs |
| Min Bend Radius/Minor Axis: | 3.5 in |

Standards

| | |
|--------------------------|------------------|
| NEC Articles: | 800 |
| NEC/(UL) Specification: | CM |
| CEC/C(UL) Specification: | CM |
| UL AWM Style: | 2919 (30 V 80°C) |
| CPR Euroclass: | Eca |

Applicable Environmental and Other Programs

| | |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2003/96/EC (BFR): | Yes |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU Directive 2012/19/EU (WEEE): | Yes |
| EU Directive 2015/863/EU: | Yes |
| EU Directive Compliance: | EU Directive 2003/11/EC (BFR) |
| EU CE Mark: | Yes |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-01 |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MII Order #39 (China RoHS): | Yes |

Suitability

| | |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

Flammability, LS0H, Toxicity Testing

| | |
|--------------------|-----------|
| UL voltage rating: | 300 V RMS |
|--------------------|-----------|

Plenum/Non-Plenum

| | |
|----------------|-------|
| Plenum (Y/N): | N |
| Plenum Number: | 82842 |

Part Number**Variants**

| Item # | Color | Footnote |
|--------|-------|----------|
|--------|-------|----------|

| | | |
|---------------|--------|---|
| 9842.001000 | Chrome | |
| 9842.00152 | Chrome | |
| 9842.0030 | Chrome | |
| 9842.00305 | Chrome | |
| 9842.00500 | Chrome | |
| 9842.009999 | Chrome | |
| 9842 060100 | Chrome | |
| 9842 0601000 | Chrome | C |
| 9842 06010000 | Chrome | |
| 9842 060500 | Chrome | C |
| 9842 0605000 | Chrome | |

| | |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
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