



Product: [9842LS](#)

RS-485, 2PR #24 Str TC, PO ins, F/B, LSNH Jkt, 300V, SWA, Eca

Product Description

RS-485, 2 Pair AWG 24 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, Foil + Braid(s) shielding, LSZH / FRNC jacket , 300V, SWA, CPR Eca

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. |
|------------------------|---|

Physical Characteristics (Overall)

Conductor

| Element | AWG | Stranding | Material | No. of Conductors | No. of Pairs |
|---------|-----|-----------|--------------------|-------------------|--------------|
| Pair(s) | 24 | 7x32 | TC - Tinned Copper | 4 | |

| | |
|------------------------|---|
| Total Number of Pairs: | 2 |
|------------------------|---|

Insulation

| Material | Nominal Diameter | Diameter +/- Tolerance |
|-------------------|------------------|------------------------|
| PE - Polyethylene | 1.73 mm | 0.05 mm |

Color Chart

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

Inner Shield Material

| Type | Material | Material Trade Name | Drainwire Material | Drainwire AWG |
|-------|-------------------------|---------------------|--------------------|---------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil® (Z-Fold®) | TC - Tinned Copper | AWG24/7 |
| Braid | Tinned Copper (TC) | | | |

Inner Jacket Material

| Material | Color | Nominal Diameter | Nominal Wall Thickness |
|---|-------------------|------------------|------------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | Chrome (RAL 7037) | 8.65 mm | 1.1 mm |

| | |
|--------------|---------------|
| Table Notes: | UV Stabilised |
|--------------|---------------|

Outer Shield Material

| Type |
|-------|
| Tape |
| Braid |

Outer Jacket Material

| Material | Nominal Diameter | Nominal Wall Thickness |
|---|------------------|------------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 13.1 mm | 1.35 mm |

Construction and Dimensions

Cabling

| Description | Filler |
|---|-------------------------------------|
| 2 pairs and 2 fillers twisted to cable core | Polypropylene (2x) (White, 2.87 mm) |

Armor

| Type of Armor | Material | Thickness of Armoring Wires | Coverage Percentage |
|---------------------|-----------------------|-----------------------------|---------------------|
| Steel Wire Armoring | Galvanized steel wire | 0.9 mm | Min. 95% |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 78.7 Ohm/km | 7.2 Ohm/km |

Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 42 pF/m | 75.5 pF/m |

Impedance

| Frequency [MHz] | Nominal Characteristic Impedance |
|-----------------|----------------------------------|
| 1 MHz | 120 Ohm |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz | 1.97 dB/100m |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 520 ns/ft | 66% |

Current

| Element | Max. Recommended Current [A] |
|-----------|------------------------------|
| Conductor | 2.1 Amps per Conductor |

Voltage

| Voltage Rating [V] |
|--------------------|
| 300 V |

Temperature Range

| | |
|--|----------------|
| Installation Temp Range: | -15°C To +80°C |
| Storage Temp Range: | -45°C To +80°C |
| Operating Temp Range (Flexible Install): | -15°C To +80°C |
| Operating Temp Range (Fixed Install): | -45°C To +80°C |

Mechanical Characteristics

| | |
|---------------------------------------|---------------|
| Oil Resistance: | IEC 60811-404 |
| Min. Bend Radius During Installation: | 196.5 mm |

Standards

| | |
|---------------------|---------------|
| CPR Euroclass: | Eca |
| CENELEC Compliance: | EN 50290-2-27 |

Applicable Environmental and Other Programs

| | |
|----------------------|--------------------------------|
| Environmental Space: | Indoor/Outdoor - Euroclass Eca |
| EU CE Mark: | Yes |

Suitability

| | |
|------------------------------------|-----|
| Suitability - Indoor: | Yes |
| Suitability - Non-Halogenated: | Yes |
| Suitability - Oil Resistance: | Yes |
| Suitability - Outdoor: | Yes |
| Suitability - Sunlight Resistance: | Yes |

Flammability, LS0H, Toxicity Testing

| | |
|--|----------------------------------|
| IEC Flammability: | IEC 60332-1-2 and IEC 60332-3-24 |
| IEC 60754-1 (EN50267-1)- Halogen Amount: | Zero |
| IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity: | 2.5 µS/mm |
| IEC 60754-2 - Halogen Acid Gas Amount - Min. pH: | 4.3 |
| IEC 61034-2 (EN 61034-2) (VDE 0482-1034) - Smoke Density Min. Transmittance: | 60% |

Part Number

Variants

| Item # | Color | Put-Up Type | Length | EAN |
|---------------|-------|-------------|---------|---------------|
| 9842LS.00152 | Black | Reel | 152 m | 8719605023094 |
| 9842LS.00500 | Black | Reel | 500 m | 8719605023124 |
| 9842LS.01500 | Black | Reel | 500 m | 8719605023162 |
| 9842LS.001000 | Black | Reel | 1,000 m | 8719605023056 |
| 9842LS.011000 | Black | Reel | 1,000 m | 8719605023131 |
| 9842LS.001200 | Black | Reel | 1,200 m | 8719605023063 |
| 9842LS.001280 | Black | Reel | 1,280 m | 8719605023070 |
| 9842LS.001500 | Black | Reel | 1,500 m | 8719605023087 |
| 9842LS.011500 | Black | Reel | 1,500 m | 8719605023148 |
| 9842LS.002000 | Black | Reel | 2,000 m | 8719605023100 |
| 9842LS.012000 | Black | Reel | 2,000 m | 8719605023155 |
| 9842LS.002600 | Black | Reel | 2,600 m | 8719605023117 |
| 9842LS.02500 | Green | Reel | 500 m | 8719605023186 |
| 9842LS.03500 | Green | Reel | 500 m | 8719605023193 |
| 9842LS.021000 | Green | Reel | 1,000 m | 8719605023179 |

History

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| Update and Revision: | Revision Number: 0.216 Revision Date: 09-08-2021 |
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