

# Product: 9842LS

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

## Product Description

RS-485, 2 Pair 24AWG 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. |

### Construction Details

**Conductor**

| Element | No. of Elements | Size | Stranding | Material |
|---|---|---|---|---|
| Pair(s) | 2 | 24 AWG | 7x32 | TC - Tinned Copper |

**Insulation**

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code |
|---|---|---|---|---|
| Pair(s) | PE - Polyethylene | 0.56 mm (0.022 in) | 1.73 mm (0.0681 in) | White/Blue & Blue/White, White/Orange & Orange/White |

**Outer Shield**

| Shield Type | Material | Coverage | Drainwire Type |
|---|---|---|---|
| Tape | Bi-Laminate (Alum+Poly) | 100% | 24 AWG (7x32) TC |
| Braid | Tinned Copper (TC) | 90% | |

**Inner Jacket**

| Material | Nom. Thickness | Nom. Diameter |
|---|---|---|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 1.1 mm (0.043 in) | 8.65 mm (0.341 in) |

**Armor**

| Armor Type & Material | Armor Thickness | Coverage |
|---|---|---|
| SWA - Steel Wire Armor | 0.9 mm (0.035 in) | Min. 95% |

**Outer Jacket**

| Material | Nom. Thickness | Nom. Diameter |
|---|---|---|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 1.35 mm (0.0531 in) | 13.1 mm (0.516 in) |

| | |
|---|---|
| Overall Cable Diameter (Nominal): | 13.1 mm (0.516 in) |

### Electrical Characteristics

**Electricals**

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedence | Nom. Velocity of Prop. | Max. Current |
|---|---|---|---|---|---|---|
| Pair(s) | 78.7 Ohm/km (24.0 Ohm/1000ft) | 42 pF/m (13 pF/ft) | 75.5 pF/m | 120 Ohm | 66% | 2.1 Amps per Conductor |

| | |
|---|---|
| Nom. Outer Shield DCR: | 7.2 Ohm/km (2.2 Ohm/1000ft) |

**High Frequency (Nominal/Typical)**

| Element | Frequency [MHz] | Nom. Insertion Loss (Attenuation) |
|---|---|---|
| Pair(s) | 1 | 1.97 dB/100m |

**Voltage**

| Voltage Rating |
|---|
| 300 V |

## Mechanical Characteristics

**Temperature**

| Operating | Installation | Storage |
|---|---|---|
| -45°C To +80°C | -15°C To +80°C | -45°C To +80°C |

**Bend Radius**

| Stationary Min. | Installation Min. |
|---|---|
| 130 mm (5.1 in) | 196 mm (7.72 in) |

| | |
|---|---|
| Max. Pull Tension: | 500 N (110 lbf) |
| Bulk Cable Weight: | 322 kg/km (216 lbs/1000ft) |

## Standards and Compliance

| | |
|---|---|
| Environmental Suitability: | IndoorIndoor/OutdoorOutdoorIndoor/Outdoor - Euroclass Eca, Indoor, Outdoor, Non-Halogenated, Sunlight Resistance, Oil Resistance |
| Flammability / Reaction to Fire: | IEC 60332-1-2, IEC 60332-3-24 |
| CPR Compliance: | CPR Euroclass: Eca |
| ISO/IEC Compliance: | IEC 61034-2 - Smoke Density Min Transmittance = 60% |
| CENELEC Compliance: | EN 50290-2-20 |
| European Halogen Free Standards: | IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - 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 |
| European Directive Compliance: | EU CE Mark |
| UK Regulation Compliance: | UKCA Mark |
| Other Standard Compliance(s): | DMX-512 |

## History

| | |
|---|---|
| Update and Revision: | Revision Number: 0.256 Revision Date: 04-07-2025 |

## Part Numbers

**Variants**

| Item # | Color | Putup 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 |

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.