



Product: [9841LW](#)

RS485, 1 Pr #24 Str TC, PO Ins, OS+TC Brd, LSZH Jkt, Cca

Product Description

RS-485, 1 Pair 24AWG (7x32) Tinned Copper, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(90%) Shield, LSZH Outer Jacket, CPR Cca

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | Data link standard: RS-485, compatible with RS-422 and RS-232 Protocols: Modbus RTU, CANopen, BACNET MS/TP, DMX512 Signal types: Digital; Low Voltage Analog (4-20ma, 0-10v, ...); Low Voltage Digital Control (24v, ...); Line Level Audio; Systems: serial communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc.; Panel Wiring ; Audio & Lighting Environment: Noisy, long distances |
|------------------------|---|

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) | PE - Polyethylene | 0.56 mm (0.022 in) | 1.73 mm (0.0681 in) | White/Blue & Blue/White |

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 |
|---|---------------------|--------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 1.10 mm (0.0433 in) | 6.50 mm (0.256 in) |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 6.50 mm (0.256 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: | 11.0 Ohm/km (3.35 Ohm/1000ft) |
|------------------------|-------------------------------|

High Frequency (Nominal/Typical)

| Element | Frequency [MHz] | Nom. Insertion Loss (Attenuation) |
|---------|-----------------|-----------------------------------|
| Pair(s) | 1 | 1.97 dB/100m (0.600 dB/100ft) |

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. |
|-----------------|-------------------|
| 32 mm (1.3 in) | 65 mm (2.6 in) |

| | |
|--------------------|--------------------------|
| Max. Pull Tension: | 328 N (73.7 lbf) |
| Bulk Cable Weight: | 61 kg/km (41 lbs/1000ft) |

Standards and Compliance

| | |
|----------------------------------|--|
| Environmental Suitability: | Indoor - Euroclass Cca, Indoor, Non-Halogenated, Sunlight Resistance, Oil Resistance |
| Flammability / Reaction to Fire: | IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Cca-s1,d1,a1; CPR UKCA Class: Cca-s1,d1,a1 |
| ISO/IEC Compliance: | IEC 61034-2 - Smoke Density Min Transmittance = 80% |
| 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: 0.87 Revision Date: 04-07-2025 |
|----------------------|---|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | EAN |
|---------------|--------|------------|--------|---------------|
| 9841LW.001000 | | | | |
| 9841LW.00305 | | | | |
| 9841LW.00500 | Chrome | Reel | 500 m | 8719605187925 |

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