




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
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	7x32	TC - Tinned Copper	1

Conductor Count:	2
Total Number of Pairs:	1

Insulation

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

Color Chart

Number	Color
Pair 1	White/Blue & Blue/White

Outer Shield

Type	Layer	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	1	Bi-Laminate (Alum+Poly)	Beldfoil®	100%	9 / 23 µm	TC - Tinned Copper	AWG24/7	7x32
Braid	2	Tinned Copper (TC)		90%				

Outer Jacket

Material	Color	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	Chrome (RAL 7037)	6.50 mm	1.10 mm

Construction and Dimensions

Stranding

Lay Direction	Twists
Left Hand	5.333 twist/ft

Cabling

Description
1 pair and 2 fillers twisted to cable core

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Inner Shield DCR
78.7 Ohm/km	11.0 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	120 Ohm

High Frequency (Nominal/Typical)

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

Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
66 ns/100m	5.2 ns/m	66%

Current

Element	Max. Recommended Current [A]
Conductor(s)	2.1 Amps per Conductor

Voltage

Voltage Rating [V]
300 V

Temperature Range

Installation Temperature Range:	-15°C To +80°C
Storage Temperature 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
Max. Pull Tension:	328 N
Min. Bend Radius During Installation:	65 mm
Min. Bend Radius/Minor Axis:	2.5 in

Standards

CPR Euroclass:	Cca-s1,d1,a1
GENELEC Compliance:	EN 50290-2-20

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Cca
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes

Suitability

Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
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

IEC 61034-2 - Smoke Density Min. Transmittance:	80%
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Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	EAN
9841LW.00500	Chrome	Reel	500 m	8719605187925

History

Update and Revision:	Revision Number: 0.67 Revision Date: 12-22-2023
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