



**Product:** [9841NH](#)

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

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**Product Description**

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

**Technical Specifications**

**Product Overview**

Suitable Applications:	harsh environment, IIoT, factory or process automation, video, audio, data communication, etc.
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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 Material**

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

**Outer Jacket Material**

Material	Color	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	Chrome (RAL 7037)	6.10 mm	0.9 mm

**Construction and Dimensions**

**Stranding**

Lay Direction	Twists
Left Hand	5,333 twist/ft

**Cabling**

Description	Filler
1 pair and 2 fillers twisted to cable core	Polypropylene (2x) (White, 1.90 mm)

**Electrical Characteristics**

**Conductor DCR**

Nominal Conductor DCR	Nominal Inner Shield DCR	Nominal Outer Shield DCR

78.7 Ohm/km	11.0 Ohm/km	3.4 Ohm/1000ft
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#### 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	1.6 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:	-20°C To +75°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
Bulk Cable Weight:	33 lbs/1000ft
Max. Pull Tension:	328 N
Min Bend Radius During Installation:	61 mm
Min Bend Radius/Minor Axis:	2.5 in

### Standards

CPR Euroclass:	Dca-s2,d1,a1
CENELEC Compliance:	EN 50290-2-27

### Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Dca
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01

### Suitability

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

### Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-3-24 and IEC 60332-3-22
IEC 60754-1 (EN50267-1)- Halogen Amount:	Zero
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 (EN 61034-2) (VDE 0482-1034) - Smoke Density Min. Transmittance:	IEC 61034-2

## Plenum/Non-Plenum

Plenum (Y/N): No

## Part Number

### Variants

Item #	Color	Putup Type	Length	UPC/EAN
9841NH.00152	Chrome	Reel	152 m	8719605022929
9841NH.00305	Chrome	Reel	305 m	8719605022936
9841NH.00500	Chrome	Reel	500 m	8719605022943
9841NH 0601000	Chrome	Reel	1,000 ft	612825259497
9841NH 0601000	Chrome	Reel	1,000 ft	612825259497
9841NH.001000	Chrome	Reel	1,000 m	8719605022912

Footnote: C - CRATE REEL PUT-UP.

## History

Update and Revision: Revision Number: 0.443 Revision Date: 08-22-2020

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