




**Product:** [9842NH](#) 

RS485, #24-2pr, PO, O/A Foil+Braid, LSZH Jkt, 120Ω

## Product Description

Computer EIA RS-485 Cable, 24 AWG stranded (7x32) tinned copper conductors, polyethylene insulation, 2 twisted pairs, overall Beldfoil® (100% coverage) + tinned copper braid shield (90% coverage), 24 AWG stranded tinned copper drain wire, LSZH jacket

## Technical Specifications

### Product Overview

Suitable Applications:	Instrumentation and computer cable; For EIA RS-485 data transmission applications
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### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	No. of Pairs
24	7x32	TC - Tinned Copper	2

Conductor Count:	4
Total Number of Pairs:	2

#### Insulation

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
PE - Polyethylene	1.73 mm	0.05 mm	0.02 in

#### Color Chart

Number	Color
Pair 1	White/Blue & Blue/White
Pair 2	White/Orange & Orange/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® (Z-Fold®)	100 %	9 / 23 μm	TC - Tinned Copper	AWG24/7	7x32
Braid	2	TC - Tinned Copper		90 %				

#### Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen flame retardant	8.65 mm	0.9 mm

### Construction and Dimensions

#### Stranding

Lay Direction	Twists
Left Hand	12 twist/ft

#### Cabling

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

### Electrical Characteristics

## Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
78.7 Ohm/km	7.2 Ohm/1000ft

## 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	1.54 ns/ft	66 %

## Current

Element	Max. Recommended Current [A]
Conductor	2.1 A

## Voltage

UL Voltage Rating	Voltage Rating [V]
300 V RMS	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 +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
Bulk Cable Weight:	49 lbs/1000ft
Max Recommended Pulling Tension:	395 N
Min Bend Radius During Installation:	86.5 mm
Min Bend Radius/Minor Axis:	3.25 in

## Standards

CPR Euroclass:	Dca-s2,d2,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):	2012-05-10
MII Order #39 (China RoHS):	Yes

## Suitability

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

## Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2 and IEC 60332-3-24
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Amount of Halogen acc. to IEC 60754-1 & EN50267-1: Zero

## Plenum/Non-Plenum

Plenum (Y/N): No

## Part Number

### Variants

Item #	Color	Putup Type	Length	UPC/EAN
9842NH.02500	Black	Reel	500 m	8719605023308
9842NH.02520	Black	Reel	520 m	8719605172129
9842NH.021000	Black	Reel	1,000 m	8719605155405
9842NH.022500	Black	Reel	2,500 m	8719605023292
9842NH.00152	Chrome	Reel	152 m	8719605023230
9842NH.00305	Chrome	Reel	305 m	8719605023254
9842NH 060500	Chrome	Reel	500 ft	612825259572
9842NH.00500	Chrome	Reel	500 m	8719605023261
9842NH 0601000	Chrome	Reel	1,000 ft	612825259565
9842NH 0601000	Chrome	Reel	1,000 ft	612825259565
9842NH.001000	Chrome	Reel	1,000 m	8719605023223
9842NH.002500	Chrome	Reel	2,500 m	8719605023247
9842NH.01305	White	Reel	305 m	8719605023285
9842NH.01500	White	Reel	500 m	8719605184795
9842NH.011000	White	Reel	1,000 m	8719605023278

Footnote: C - CRATE REEL PUT-UP.

## History

Update and Revision: Revision Number: 0.404 Revision Date: 04-16-2020

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