



**Part Number: 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

Environmental Space:	Indoor - Euroclass Dca
Suitable Applications:	Instrumentation and computer cable; For EIA RS-485 data transmission applications

### 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
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	Aluminum/Polyester	Z-fold®	100 %	9 / 23 μm	TC - Tinned Copper	AWG24/7	7x32 mm
Braid	2	TC - Tinned Copper		90 %				

#### Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
LSZH / FRNC (UV stabilised)	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

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

## Flammability, LS0H, Toxicity Testing

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

## Plenum/Non-Plenum

Plenum (Y/N): No

## Part Number

### Variants

Item #	Color	UPC	Length	Footnote
9842NH.02500	Black		500 m	
9842NH.022500	Black		2,500 m	
9842NH.02520	Black		520 m	
9842NH.021000	Black		1,000 m	
9842NH.001000	Chrome		1,000 m	
9842NH.00152	Chrome		152 m	
9842NH.00305	Chrome		305 m	
9842NH.00500	Chrome		500 m	
9842NH 0601000	Chrome	612825259565	1,000 ft	C
9842NH 060500	Chrome	612825259572	500 ft	
9842NH.K01000	Chrome		1,000 m	
9842NH.K0305	Chrome		305 m	
9842NH.002500	Chrome		2,500 m	
9842NH 0601000	Chrome	612825259565	1,000 ft	C
9842NH.011000	White		1,000 m	
9842NH.01305	White		305 m	

Footnote: C - CRATE REEL PUT-UP.

## History

Update and Revision: Revision Number: 0.382 Revision Date: 09-12-2019

© 2019 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.