



**Part Number: 9843NH**

Low Capacitance Computer Cable for EIA RS-485 Applications

## Product Description

3-Pair, 24 AWG stranded (7x32) TC conductors, polyethylene insulation, twisted pairs, overall Beldfoil® (100% coverage) + TC braid shield (90% coverage), 24 AWG stranded TC drain wire, LSZH jacket, Flame resistance IEC 60332-3C

## 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	3

Conductor Count:	6
Total Number of Pairs:	3
Conductor Size:	24 AWG

#### Insulation

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

#### Color Chart

Number	Color	Number	Color
Pair 1	White/Blue & Blue/White	Pair 3	White/Green & Green/White
Pair 2	White/Orange & Orange/White		

#### Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG
Tape	Aluminum/Polyester	Z-fold®		9 / 23 µm	TC - Tinned Copper	AWG24/7
Braid	TC - Tinned Copper		90 %			

#### Outer Jacket Material

Material	Color	Nominal Diameter	Nominal Wall Thickness
LSZH / FRNC	Chrome (like RAL 7037)	9.1 mm	0.9 mm

### Construction and Dimensions

#### Cabling

Description	Filler
3 pairs and a filler twisted to cable core	Polypropylene

### Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR

78.7 Ohm/km	7.7 Ohm/km
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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 MHz	120 Ohm

#### High Frequency (Nominal/Typical)

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

#### Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
520 ns/ft	66 %

#### Current

Element	Max. Recommended Current [A]
Conductor	1.54 A

#### 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 (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 Recommended Pulling Tension:	470 N
Min Bend Radius During Installation:	91 mm

### Standards

CPR Euroclass:	Dca-s2,d2,a1
CENELEC Compliance:	EN 50290-2-27

### Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01
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### Flammability, LSOH, 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

### Part Number

#### Variants

Item #	Color	Length
9843NH.001000	Chrome	1,000 m
9843NH.00305	Chrome	305 m
9843NH.00500	Chrome	500 m

### History

Update and Revision:	Revision Number: 0.153 Revision Date: 05-07-2019
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