BELDEN
SENDING ALL THE RIGHT SIGNALS

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