



REPRESENTATIVE IMAGE

Product: [9842NH](#)

RS485, 2 Pr #24 Str TC, PO Ins, OS+TC Brd, LSZH Jkt, Dca

Product Description

RS-485, 2 Pair 24AWG (7x32) Tinned Copper, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(90%) Shield, LSZH Outer Jacket, CPR Dca

Technical Specifications

Product Overview

Suitable Applications:	RS-485, POS; Computer communications; Low Voltage Analog Signals (4-20ma, 0-10v, ...); Low Voltage Digital Control (24v, ...); Line Level Audio; Panel Wiring; serial communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc. within noisy environments over long distance, etc.
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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

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

Outer Jacket

Material	Color	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	Chrome (RAL 7037)	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(s)	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 +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. Pull 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
GENELEC 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
MII Order #39 (China RoHS):	Yes

Suitability

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

Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2 and IEC 60332-3-24
IEC 60754-1 - Halogen Amount:	Zero

IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 - Smoke Density Min. Transmittance:	60%

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Put-Up 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.
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History

Update and Revision:	Revision Number: 0.449 Revision Date: 12-15-2021
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