



Part Number: 9842NH

Low Capacitance Computer Cable for EIA RS-485 Applications

Product Description

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

Product Specifications

Technical Specifications

Application 1:	Instrumentation and computer cable
Application 2:	For EIA RS-485 data transmission applications

Construction and Dimensions

Conductor:

AWG	Stranding	Material	No. of Pairs
24	7xAWG32	Tinned copper	2
Total Number of Conductors:			4

Insulation:

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

Color Chart 1:

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

Stranding:

Lay Length	Lay Direction	Twists
1 mm	Left Hand	12 twist/ft

Cabling 1:

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

Outershield 1:

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	Tinned copper	AWG24/7	7x32 mm
Braid	2	Tinned copper		90 %				

Outerjacket 1:

Material	Color	Nominal Diameter	Nominal Wall Thickness
FRNC / LSNH (UV stabilised)	Chrome (like RAL 7037)	8.65 mm	0.9 mm

Electrical Characteristics

Conductor DCR:

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

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	520 ns/ft	66 %

Current:

Element	Max. Recommended Current [A]
Conductor	2.1 A

Voltage:

UL Voltage Rating	Voltage Rating (V)
300V RMS	300 V

Use

Oil Resistance:	IEC 60811-404
Suitability - Indoor:	Yes
Max Recommended Pulling Tension:	395 N

Safety

C(UL) Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-3-24
UL Flammability:	UL1685 FT4 Loading
Suitability - Non-Halogenated:	Yes
Amt of Halogen IEC 60754-1 / EN50267-1:	Zero
Amt of Halogen Acid Gas; MaxConductivity:	10 μ S/mm
Amt of Halogen Acid Gas; Min pH:	4.3
Smoke Density; Min Transmittance:	60 %

Temperature Range

Operating Temp Range (Flexible Install):	-15 to +80 °C
Operating Temp Range (Fixed Install):	-45 to +80 °C
Installation Temp Range:	-15 to +80 °C
Operating Temp Range:	-20 °C To +80 °C
Storage Temp Range:	-45 to +80 °C
UL Temp Rating:	80 °C

Mechanical Characteristics

Min Bend Radius During Installation:	86.5 mm
Min Bend Radius/Minor Axis:	3.25 in

Part Number

Plenum (Y/N):	No
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Standards

CA Prop 65 (CJ for Wire & Cable):	Yes
CEC/C(UL) Specification:	CMG
MII Order #39 (China RoHS):	Yes
NEC/(UL) Specification:	CMG
CENELEC Compliance:	EN 50290-2-27
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes

History

Revision Date:	2013-07-08
Revision Number:	8

Product Variants

Part Number	Color	Put-Up Type	Length
9842NH 0601000	CHROME	Reel	305 m
9842NH 0601000	CHROME	Reel	305 m
9842NH 060500	CHROME	Reel	152 m
9842NH 060500	CHROME	Reel	152 m
9842NH.001000	CHROME	Reel	1000 m
9842NH.00152	CHROME	Reel	152 m
9842NH.00305	CHROME	Reel	305 m
9842NH.00500	CHROME	Reel	500 m

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