




Product: [9844NH](#) 

RS485, 4 Pr #24 Str TC, PE Ins, OS+TC Brd, LSZH Jkt, Eca

Product Description

4-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

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, HMLs, 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	4
Conductor Count:			8
Total Number of Pairs:			4

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

Color Chart	
Number	Color
Pair 1	White/Blue & Blue/White
Pair 2	White/Orange & Orange/White
Pair 3	White/Green & Green/White
Pair 4	White/Brown & Brown/White

Outer Shield						
Type	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG
Tape	Bi-Laminate (Alum+Poly)	Beldfoil® (Z-Fold®)	90%	9 / 23 µm	TC - Tinned Copper	AWG24/7
Braid	Tinned Copper (TC)		90%			

Outer Jacket		
Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	9.9 mm	0.9 mm

Construction and Dimensions

Cabling	
Description	
4 pairs twisted to cable core	

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
78.7 Ohm/km	6.9 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 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(s)	2.1 Amps per Conductor

Voltage

Voltage Rating [V]
300 V

Temperature Range

Installation Temperature Range:	-15°C To +80°C
Storage Temperature 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. Pull Tension:	500 N
Min. Bend Radius During Installation:	99 mm

Standards

CPR Euroclass:	Eca
CENELEC Compliance:	EN 50290-2-20

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Eca
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Suitability

Suitability - Sunlight Resistance:	Yes
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Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2, 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%

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	EAN
9844NH.011000	Black	Reel	1,000 m	8719605155733

9844NH.012000	Black	Reel	2,000 m	8719605145284
9844NH.00305	Chrome	Reel	305 m	8719605023452
9844NH.00500	Chrome	Reel	500 m	8719605023469
9844NH.001000	Chrome	Reel	1,000 m	8719605023445

History

Update and Revision:	Revision Number: 0.415 Revision Date: 12-22-2023
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