



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; ser communication (RS-485 standard) comprising of PLCs VFDs. HMIs motors RTIL SCADA etc. within noisy environments over long distance, etc.
Sultable Applications:	communication (RS-485 standard) comprising of PLCs, VFDs, HMIs, motors, RTU, SCADA, etc. within noisy environments over long distance, etc.

## **Physical Characteristics (Overall)**

#### Conductor

AWG	Stranding	Material	No. of Pairs
24	7x32	TC - Tinned Copper	4
Condu	ctor Count:	8	3
Total I	Number of Pa	irs:	1

#### 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

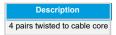
Туре	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG
Tape	Bi-Laminate (Alum+Poly)	Beldfoil® (Z-Fold®)	90%	9 / 23 µm	TC - Tinned Copper	AWG24/7
Braid	Tinned Copper (TC)		90%			

#### **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



## **Electrical Characteristics**

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]

# **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

# Suitability

Suitability - Sunlight Resistance:	Yes		
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# Flammability, LS0H, 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**

pdate and Revision:
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