

Product: 9842NH

RS-485, 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.

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	2	24 AWG	7x32	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Pair(s)	PE - Polyethylene	0.56 mm (0.022 in)	1.73 mm (0.0681 in)	White/Blue & Blue/White, White/Orange & Orange/White

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC
Braid	Tinned Copper (TC)	90%	

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.9 mm (0.035 in)	8.65 mm (0.341 in)

Overall Cable Diameter (Nominal):	8.65 mm (0.341 in)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Pair(s)	78.7 Ohm/km (24.0 Ohm/1000ft)	42 pF/m (13 pF/ft)	75.5 pF/m	120 Ohm	66%	2.1 Amps per Conductor

Nom. Outer Shield DCR:	7.2 Ohm/km (2.2 Ohm/1000ft)

High Frequency (Nominal/Typical)

Element	Frequency [MHz]	Nom. Insertion Loss (Attenuation)
Pair(s)	1	1.97 dB/100m

Voltage

Voltage Rating
300 V

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-45°C To +80°C	-15°C To +80°C	-45°C To +80°C

Bend Radius

Stationary Min.	Installation Min.
43 mm (1.7 in)	86 mm (3.4 in)

Max. Pull Tension:	395 N (88.8 lbf)
Bulk Cable Weight:	97 kg/km (65 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Dca, Indoor, Non-Halogenated, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-24
CPR Compliance:	CPR Euroclass: Dca-s2,d2,a1
ISO/IEC Compliance:	IEC 61034-2 - Smoke Density Min Transmittance = 60%
CENELEC Compliance:	EN 50290-2-20
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, 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
European Directive Compliance:	EU CE Mark
UK Regulation Compliance:	UKCA Mark
Other Standard Compliance(s):	DMX-512

History

Update and Revision:	Revision Number: 0.573 Revision Date: 04-07-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC/EAN	Footnote
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	C
9842NH 0601000	Chrome	Reel	1,000 ft	612825259565	C
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	

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.