Belden



Product: 9842

RS485, 2 Pr #24 Str TC, PE Ins, OS+TC Brd, PVC Jkt, CM

Product Description

RS-485, 2 Pair 24AWG (7x32) Tinned Copper, PE Insulation, Overall Beldfoil®+Tinned Copper Braid(90%) Shield, PVC Outer Jacket, CM

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	0.022 in (0.56 mm)	0.068 in (1.7 mm)	White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe

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
PVC - Polyvinyl Chloride	0.035 in (0.89 mm)	0.340 in (8.64 mm)

Outer Jacket1 Table Notes:	Jacket OD +/- 0.025
Overall Cable Diameter (Nominal):	0.340 in (8.64 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Delay	Nom. Velocity of Prop.	Max. Current
Pair(s)	24 Ohm/1000ft	12.8 pF/ft (42.0 pF/m)	23 pF/ft (75 pF/m)	120 Ohm	1.54 ns/ft	66%	2.1 Amps per Conductor at 25ºC

Nom Outer Shield DCR@Cond DCR1-cnv:	2.2 Ohm/1000ft (7.2 Ohm/km)

High Frequency (Nominal/Typical)

Element	Frequency [MHz]	Nom. Insertion Loss (Attenuation)
Pair(s)	1	0.6 dB/100ft

Voltage

UL Voltage Rating
300 V (CM), 30 V (UL AWM 2919)

Mechanical Characteristics

Temperature

UL Temperature	Operating
80°C	-30°C to +80°C

Bend Radius

Stationary Min.	Installation Min.
3.5 in (89 mm)	3.5 in (89 mm)

Max. Pull Tension:	87 lbs (39 kg)
Bulk Cable Weight:	49 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	UL 1685 UL Loading, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800, CM
AWM Compliance:	AWM 2919
CEC / C(UL) Compliance:	CM
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	DMX-512
Plenum Number:	82842, 89842
Non-Plenum Number:	9841ZH

History

Update and Revision:	Revision Number: 0.703 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC/EAN	Footnote
9842.0030	Chrome	Reel	30 m	8719605023001	
9842 060100	Chrome	Reel	100 ft	612825259510	
9842.009999	Chrome	Reel	151 m	8719605023032	
9842.00152	Chrome	Reel	152 m	8719605022981	
9842.00305	Chrome	Reel	305 m	8719605023018	
9842 060500	Chrome	Reel	500 ft	612825259541	C
9842.00500	Chrome	Reel	500 m	8719605023025	
9842 0601000	Chrome	Reel	1,000 ft	612825259527	C
9842.001000	Chrome	Reel	1,000 m	8719605022974	
9842.001525	Chrome	Reel	1,525 m	8719605022998	
9842 0605000	Chrome	Reel	5,000 ft	612825259558	
9842 06010000	Chrome	Reel	10,000 ft	612825259534	

Footnote:	C - CRATE REEL PUT-UP.

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