Belden



Product: 82841

RS485, 1 Pr #24 Str TC, FEP Ins, OS+TC Brd, PVC Jkt, CMP

Product Description

RS-485, 1 Pair 24AWG (7x32) Tinned Copper, FEP Insulation, Overall Beldfoil®+Tinned Copper Braid(90%) Shield, PVC Outer Jacket, CMP

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)	1	24 AWG	7x32	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Pair(s)	FEP - Fluorinated Ethylene Propylene (Foam)	0.025 in (0.64 mm)	0.074 in (1.9 mm)	White/Blue Stripe & Blue/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	0.015 in (0.38 mm)	0.204 in (5.18 mm)

Overall Cable Diameter (Nominal):	0.204 in (5.18 mm)

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)	24 Ohm/1000ft	12 pF/ft (39 pF/m)	22 pF/ft (72 pF/m)	120 Ohm	76%	4 Amps per Conductor at 25ºC

Nom Outer Shield DCR@Cond DCR1-cnv:	3.1 Ohm/1000ft (10 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 (CMP)

Mechanical Characteristics

Temperature

UL Temperature	Operating
75°C	0°C to +75°C

Bend Radius

Stationary Min.	Installation Min.
2.25 in (57.2 mm)	2.25 in (57.2 mm)

Max. Pull Tension:	45.7 lbs (20.7 kg)
Bulk Cable Weight:	26 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	NFPA 262, UL 910 (Plenum), FT6, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMP
CEC / C(UL) Compliance:	CMP
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)
Non-Plenum Number:	9841, 9841ZH

History

Update and Revision:	Revision Number: 0.548 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	UPC	Footnote
82841 8771000	Natural	612825198161	C
82841 877500	Natural	612825198178	
82841 8775000	Natural	612825198185	

Footnote:	C - CRATE REEL PUT-UP.

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