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	120 Ohm	76%	4 Amps per Conductor at 25ºC

Nom. Outer Shield DCR:	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: 0.546 Revision Date: 04-30-2024

Part Numbers

Variants

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

© 2024 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.