BELDEN
SENDING ALL THE RIGHT SIGNALS

Product: 9843

RS485, 3 Pr #24 Str TC, PE Ins, OS+TC Brd, PVC Jkt, CM

Request Sample

Product Description

RS-485, 3 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	Number of Element	Size	Stranding	Material
Pair(s)	3	24 AWG	7x32	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Color Code
Pair(s)	PE - Polyethylene	0.022 in (0.56 mm)	White/Blue Stripe & Blue/White Stripe, White/Orange Stripe & Orange/White Stripe, White/Green Stripe & Green/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)	0.360 in (9.14 mm)

Cable Diameter (Nominal):	0.360 in

Electrical Characteristics

Electricals

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

Nom. Outer Shield DCR:	2.3 Ohm/1000ft

High Frequency (Nominal/Typical)

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

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	Operating
80°C (UL AWM 2919)	-30°C to +80°C

Bend Radius

Stationary Min.	Installation Min.
3.75 in (95.3 mm)	3.75 in

Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	UL1685 UL Loading, IEC 60332-1-2
NEC / UL Compliance:	Article 800, CM
AWM Compliance:	2919
CEC / C(UL) Compliance:	CM
CPR Euroclass:	Eca
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)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

History

Update and Revision:	Revision Number: 0.430 Revision Date: 10-27-2021