



Part Number: 9841

RS-485, (1 pr) 24 AWG (7x32) TC, PE/PVC, Foil+TC Braid Shld, CM, 120Ω

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Product Description

One 24 AWG pair stranded (7x32) tinned copper conductors, polyethylene insulation, twisted pairs, overall Beldfoil® (100% coverage) + tinned copper braid shield (90% coverage), 24 AWG stranded tinned copper drain wire, PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	RS-485, DMX-512
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	7x32	TC - Tinned Copper	1

Conductor Count:	2
Total Number of Pairs:	1
Conductor Size:	24 AWG

Insulation

Material	Nominal Wall Thickness
PE - Polyethylene	0.0225 in

Color Chart

Color
White/Blue & Blue/White

Inner Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.232 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	1	Aluminum/Polyester	Beldfoil® with shorting fold	100 %	TC - Tinned Copper	24	7x32 mm
Braid	2	TC - Tinned Copper		90 %			

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.512 in	0.035 in

Construction and Dimensions

Cabling

Lay Direction	Twists	Filler
Left Hand	4.8 twist/ft	Fibrous Polypropylene

Armor

Type of Armor	Material	Diameter over Armoring
Interlocked Armor	Aluminum	0.435 mm

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
24 Ohm/1000ft	3.4 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
12.8 pF/ft	23 pF/ft

Shielding:	Foil + Braid(s)
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Impedance

Nominal Characteristic Impedance
120 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.6 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.6 ns/ft	66 %

Current

Element	Max. Recommended Current [A]
10C Temperature Rise	2.1 Amps per conductor @ 25°C

Voltage

UL Description	UL Voltage Rating
Type CM	300 V RMS
AWM 2919	30 V RMS (UL AWM 2919)

Electrical Characteristics Notes:	Attenuation @ 1 MHz: .6 dB/100 ft nominal
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Temperature Range

UL Temp Rating:	80°C
Operating Temp Range:	-30°C To +80°C

Mechanical Characteristics

Bulk Cable Weight:	126 lbs/1000ft
Max Recommended Pulling Tension:	200 lbs
Min Bend Radius/Minor Axis:	5.1 in

Standards

NEC Articles:	800
NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM
UL AWM Style:	2919 (30 V 80°C)
CPR Euroclass:	Eca

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes

MII Order #39 (China RoHS):	Yes
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Suitability

Suitability - Hazardous Locations:	Yes
Suitability - Indoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT1
UL voltage rating:	300 V RMS (CM)

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	82841, 89841

Part Number

Variants

Item #	Color	Footnote
9841.01152	Chrome	
9841.011525	Chrome	
9841.01305	Chrome	
9841.019999	Chrome	
9841 060100	Chrome	
9841 0601000	Chrome	C
9841 06010000	Chrome	C
9841 060500	Chrome	C
9841 0605000	Chrome	
9841.03305	Violet	
9841.02305	Yellow, RAL 1021	

Footnote:	C - CRATE REEL PUT-UP.
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