# **Detailed Specifications & Technical Data**

METRIC MEASUREMENT VERSION



# 9841 Multi-Conductor - Low Capacitance Computer Cable for EIA RS-485 Applications

For more Information please call

1-800-Belden1



## **General Description:**

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

# **Physical Characteristics (Overall)**

### Conductor

#### AWG:

# Pairs	AWG	Stranding	<b>Conductor Material</b>
1	24	7x32	TC - Tinned Copper

Total Number of Conductors: 2

### Insulation

### **Insulation Material:**

Insulation Material	Wall Thickness (mm)
PE - Polyethylene	0.584

### **Outer Shield**

### **Outer Shield Material:**

Layer #	_ayer # Outer Shield Trade Name		Outer Shield Material	Coverage (%)
1	Beldfoil® (w/ shorting fold)	Tape	Aluminum Foil-Polyester Tape	100.000
2		Braid	TC - Tinned Copper	90.000

### **Outer Shield Drain Wire AWG:**

AWG	Stranding	Drain Wire Conductor Material
24	7x#32	TC - Tinned Copper

### **Outer Jacket**

### **Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	0.889

#### **Overall Cable**

Overall Cabling Fillers: Fibrous Polypropylene

# Overall Cabling Lay Length & Direction:

Length (mm)	Direction	Twists (twist/m)		
63.500	Left Hand	15.749		

Overall Nominal Diameter: 5.893 mm

## Pair

### Pair Color Code Chart:

Color White/Blue and Blue/White

## **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-30°C To +90°C	
UL Temperature Rating:	80°C (UL AWM Style 2919)	
Bulk Cable Weight:	53.575 Kg/Km	
Max. Recommended Pulling Tension:	321.605 N	

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Min. Bend Radius/Minor Axis: 63.500 mm **Applicable Specifications and Agency Compliance (Overall) Applicable Standards & Environmental Programs** NEC/(UL) Specification: CM **NEC Articles:** 800 CEC/C(UL) Specification: CM **AWM Specification:** UL Style 2919 (30 V 80°C) EU Directive 2011/65/EU (ROHS II): Yes **EU CE Mark:** Yes EU Directive 2000/53/EC (ELV): Yes EU Directive 2002/95/EC (RoHS): Yes EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2004 EU Directive 2002/96/EC (WEEE): Yes EU Directive 2003/11/EC (BFR): Yes CA Prop 65 (CJ for Wire & Cable): Yes MII Order #39 (China RoHS): Yes Flame Test **UL Flame Test:** UL1685 UL Loading **CSA Flame Test:** FT1 Suitability Suitability - Indoor: Yes Plenum/Non-Plenum Plenum (Y/N): No

82841, 89841

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm) 120

Plenum Number:

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 41.9968

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 75.463

Nominal Velocity of Propagation:

**VP (%)** 66

**Nominal Delay:** 

**Delay (ns/m)** 5.2496

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 78.744

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 11.1554

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#### Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100m) 1.969

#### Max. Operating Voltage - UL:

Voltage	Description		
300 V RMS	Type CM		
30 V RMS	AWM2919		

### Max. Recommended Current:

Description	Current		
10C temperature rise	2.1 Amps per conductor @ 25°C ambient		

## **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9841 060100	30 MT	1.950 KG	CHROME		1 PR #24 PE SH PVC
9841 0601000	305 MT	18.144 KG	CHROME	С	1 PR #24 PE SH PVC
9841 06010000	3,048 MT	172.366 KG	CHROME	С	1 PR #24 PE SH PVC
9841 060500	152 MT	9.072 KG	CHROME	С	1 PR #24 PE SH PVC
9841 0605000	1,524 MT	90.719 KG	CHROME		1 PR #24 PE SH PVC

#### Notes:

C = CRATE REEL PUT-UP.

Revision Date: 08-02-2013 Revision Number: 2

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