

## 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.

### Usage (Overall)

Suitable Applications: RS-485, DMX-512

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Pairs	AWG	Stranding	Conductor Material
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 #	Outer Shield Trade Name	Type	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 +80°C

Bulk Cable Weight: 53.575 Kg/Km

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Max. Recommended Pulling Tension:	321.605 N
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
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#### Plenum/Non-Plenum

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

### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)  
120

#### 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)

**METRIC MEASUREMENT VERSION**

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11.1554

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100m)
1.000	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	100 FT	4.300 LB	CHROME		1 PR #24 PE SH PVC
9841 0601000	1,000 FT	40.000 LB	CHROME	C	1 PR #24 PE SH PVC
9841 06010000	10,000 FT	380.000 LB	CHROME	C	1 PR #24 PE SH PVC
9841 060500	500 FT	20.000 LB	CHROME	C	1 PR #24 PE SH PVC
9841 0605000	5,000 FT	200.000 LB	CHROME		1 PR #24 PE SH PVC

**Notes:**

C = CRATE REEL PUT-UP.

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