# **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



### **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        |

#### Insulation

#### Insulation Material:

Insulation Material
PE - Polyethylene

### **Outer Shield**

#### **Outer Shield Material:**

| Layer # | Outer Shield Trade Name | Type  | Outer Shield Material        | Coverage (%) |
|---------|-------------------------|-------|------------------------------|--------------|
| 1       | Beldfoil®               | Tape  | Aluminum Foil-Polyester Tape | 100          |
| 2       |                         | Braid | TC - Tinned Copper           | 90           |

### Outer Shield Drain Wire AWG:

| AWG | Stranding | <b>Drain Wire Conductor Material</b> |  |  |  |
|-----|-----------|--------------------------------------|--|--|--|
| 24  | 7x32      | TC - Tinned Copper                   |  |  |  |

#### **Outer Jacket**

#### **Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

#### **Overall Cabling**

Overall Nominal Diameter: 5.893 mm

#### Pair

### Pair Color Code Chart:

Color White/Blue and Blue/White

### Pair Lay Length & Direction:

| Lay Length (mm) | Twists/ft. (twist/m) | Direction     |
|-----------------|----------------------|---------------|
| 63.49975        | 15.749               | Left Hand Lay |

### **Mechanical Characteristics (Overall)**

| Operating Temperature Range:           | -30°C To +80°C |
|--|----------------|
| UL Temperature Rating:                 | 80°C           |
| Bulk Cable Weight:                     | 53.575 Kg/Km   |
| Max. Recommended Pulling Tension:      | 321.605 N      |
| Min. Bend Radius (Install)/Minor Axis: | 63.500 mm      |

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| Applicable Specifications and Agency Compliance (Overall) |                           |  |  |  |  |
|---|---------------------------|--|--|--|--|
| Applicable Standards & Environmental Programs             |                           |  |  |  |  |
| NEC/(UL) Specification:                                   | CM                        |  |  |  |  |
| CEC/C(UL) Specification:                                  | CM                        |  |  |  |  |
| AWM Specification:  | UL Style 2919 (30 V 80°C) |  |  |  |  |
| 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                       |  |  |  |  |
| Plenum/Non-Plenum   |                           |  |  |  |  |
| Plenum (Y/N):   | No                        |  |  |  |  |
| Plenum Number:  | 82841, 89841              |  |  |  |  |
|   |                           |  |  |  |  |

### **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:



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

Nom. Attenuation:

Attenuation (dB/100m) 0.6 (@ 1 MHz)

Max. Operating Voltage - UL:

Voltage 300 V RMS 30 V RMS (UL AWM Style 2919)

Max. Recommended Current:

Current

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

2.1 Amps per conductor @ 25°C

### **Related Documents:**

No related documents are available for this product

#### **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 060500  | 152 MT   | 9.072 KG    | CHROME | С     | 1 PR #24 PE SH PVC |
| 9841 0605000 | 1,524 MT | 86.183 KG   | CHROME |       | 1 PR #24 PE SH PVC |

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 04-18-2008

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