

## 9681 Multi-Conductor - Low Capacitance Cable for EIA RS-232/422 Applications



For more Information  
please call

1-800-Belden1



### General Description:

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

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Pairs	AWG	Stranding	Conductor Material
4	24	7x32	TC - Tinned Copper

Total Number of Conductors: 8

#### Insulation

##### Insulation Material:

Insulation Material	Wall Thickness (mm)
PE - Polyethylene	0.406

#### Outer Shield

##### Outer Shield Material:

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

##### Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
24	7x32	TC - Tinned Copper

#### Outer Jacket

##### Outer Jacket Material:

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

#### Overall Cable

Overall Nominal Diameter: 7.798 mm

#### Pair

##### Pair Color Code Chart:

Number	Color
1	White/Blue & Blue/White
2	White/Orange & Orange/White
3	White/Green & Green/White
4	White/Brown & Brown/White

### Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +80°C

Non-UL Temperature Rating: 80°C (UL AWM Style 2919)

Bulk Cable Weight: 58.040 Kg/Km

Max. Recommended Pulling Tension: 195.721 N

Min. Bend Radius/Minor Axis: 82.550 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 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
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#### Plenum/Non-Plenum

Plenum (Y/N):	No
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### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

##### Impedance (Ohm)

100

#### Nom. Capacitance Conductor to Conductor:

##### Capacitance (pF/m)

50.8555

#### Nom. Capacitance Cond. to Other Conductor & Shield:

##### Capacitance (pF/m)

90.2275

#### Nominal Velocity of Propagation:

##### VP (%)

66

#### Nom. Conductor DC Resistance:

##### DCR @ 20°C (Ohm/km)

78.744

#### Nominal Outer Shield DC Resistance:

##### DCR @ 20°C (Ohm/km)

47.2464

#### Max. Operating Voltage - UL:

Voltage	Description
30 V RMS	UL AWM Style 2919
300 V RMS	CM

#### Max. Recommended Current:

##### Current

2.1 Amps per conductor @ 25°C

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
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## METRIC MEASUREMENT VERSION

### 9681 Multi-Conductor - Low Capacitance Cable for EIA RS-232/422 Applications

9681 0601000	1,000 FT	43.000 LB	CHROME	C	4 PR #24 PER FS PVC
9681 060500	500 FT	23.000 LB	CHROME	C	4 PR #24 PER FS PVC
9681 0605000	5,000 FT	220.000 LB	CHROME		4 PR #24 PER FS PVC

**Notes:**

C = CRATE REEL PUT-UP.

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