



## Description:

18 AWG stranded (19x30) silver-plated copper conductors, cabled and color-coded, extruded TFE Teflon® insulation, silver-plated copper braid shield (85% coverage), TFE teflon tape-wrapped jacket.

## Physical Characteristics (Overall)

### Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
1	18	19x30	SPC - Silver Plated Copper

### Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Wall Thickness (in.)
Teflon®	TFE - Tetrafluoroethylene	.011

Insulation Resistance: 100,000 Megaohms/1000 ft.

### Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	SPC - Silver Plated Copper	85

### Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material	Nom. Wall Thickness (in.)
Teflon®	TFE - Tetrafluoroethylene	.010

### Overall Cabling

Overall Cabling Color Code Chart:

Color
White

Overall Nominal Diameter: 0.109 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range: -65°C To +200°C

Bulk Cable Weight: 15.800 lbs/1000 ft.

Max. Recommended Pulling Tension: 44.500 lbs.

Min. Bend Radius (Install)/Minor Axis: 1.125 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

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): 01/01/2005

EU Directive 2002/96/EC (WEEE): Yes

## 83307E Multi-Conductor - MIL-W-16878/4 (Type E)

<b>EU Directive 2003/11/EC (BFR):</b>	Yes
<b>CA Prop 65 (CJ for Wire &amp; Cable):</b>	Yes
<b>MII Order #39 (China RoHS):</b>	Yes
<b>Military Specification:</b>	MIL-W-16878/4 (Type E except stranding) (insulated conductors)

### Flame Test

<b>UL Flame Test:</b>	UL1685 UL Loading, VW-1
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### Plenum/Non-Plenum

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

### Nom. Characteristic Impedance:

Impedance (Ohm)

21

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

71.5

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

5.7

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

15.3

### Max. Operating Voltage - UL:

Voltage

600 V RMS

### Max. Recommended Current:

Current

8.1 Amps per conductor @ 25°C

## Notes (Overall)

**Notes:** Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
83307E 0091000	1,000 FT	16.000 LB	WHITE	E	1 #18 TFE BRD TFE TAPE

### Notes:

E = MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'

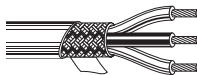
## High-Temperature

### Overall Braid Shield — Control and Instrumentation Cables

#### MIL-W-16878/4 (Type E) — Individual Conductors

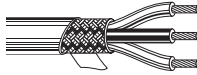
Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Nominal Capacitance			
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m

**20 AWG** Stranded (19x32) Silver-plated Copper Conductors • Cabled and Color-coded • Silver-plated Copper Braid Shield (85% Coverage)

Extruded TFE Teflon® Insulation • White TFE Teflon Tape-wrapped Jacket																
600V RMS -65°C to 200°C VW-1 	<b>83306E</b>	—	1	White	100 <sup>†</sup> 1000 <sup>▲</sup>	30.5 304.8	1.4 14.0	0.6 6.4	.010 .25	.010 .25	.099 2.52	—	—	69	226	
	<b>83320E</b>	—	2	White, Black	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	2.6 12.0 23.0	1.2 5.4 10.4	.010 .25	.011 .28	.159 4.04	31.7 104	51 167			
	<b>83335E</b>	—	3	White, Black, Red	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	3.3 15.5 30.0	1.5 7.0 13.6	.010 .25	.011 .28	.168 4.27	31.7 104	51 167			
	<b>83350E</b>	—	4	White, Black, Red, Green	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	4.0 19.0 37.0	1.8 8.6 16.8	.010 .25	.011 .28	.183 4.65	31.7 104	51 167			

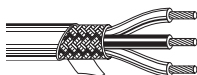
Complies with MIL-W-16878/4 (Type E) except stranding.

**18 AWG** Stranded (19x30) Silver-plated Copper Conductors • Cabled and Color-coded • Silver-plated Copper Braid Shield (85% Coverage)

Extruded TFE Teflon Insulation • White TFE Teflon Tape-wrapped Jacket																
600V RMS -65°C to 200°C VW-1 	<b>83307E</b>	—	1	White	1000 <sup>▲</sup>	304.8	17.0	7.7	.011 .28	.010 .25	.109 2.77	—	—	71.5	235	
	<b>83321E</b>	—	2	White, Black	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	3.2 15.0 29.0	1.5 6.8 13.2	.011 .28	.011 .28	.179 4.55	31 102	52.8 173			
	<b>83336E</b>	—	3	White, Black, Red	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	4.2 20.0 39.0	1.9 9.1 17.7	.011 .28	.011 .28	.189 4.80	31 102	52.8 173			
	<b>83351E</b>	—	4	White, Black, Red, Green	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	5.2 25.0 51.0	2.4 11.3 23.1	.011 .28	.011 .28	.207 5.26	31 102	52.8 173			

Complies with MIL-W-16878/4 (Type E) except stranding.

**16 AWG** Stranded (19x29) Silver-plated Copper Conductors • Cabled and Color-coded • Silver-plated Copper Braid Shield (85% Coverage)

Extruded TFE Teflon Insulation • White TFE Teflon Tape-wrapped Jacket																
600V RMS -65°C to 200°C VW-1 	<b>83308E</b>	—	1	White	500 <sup>††</sup> 1000 <sup>▲</sup>	152.4 304.8	9.5 20.0	4.3 9.1	.012 .31	.011 .28	.120 3.05	—	—	72.5	238	
	<b>83322E</b>	—	2	White, Black	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	3.8 18.0 35.0	1.7 8.2 15.9	.012 .31	.011 .28	.197 5.00	36 118	60 197			
	<b>83337E</b>	—	3	White, Black, Red	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	5.0 24.5 49.0	2.3 11.1 22.2	.012 .31	.011 .28	.209 5.31	30.7 101	53 174			
	<b>83352E</b>	—	4	White, Black, Red, Green	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8	6.2 30.5 61.0	2.8 13.8 27.7	.012 .31	.011 .28	.229 5.82	30.2 99	50.8 167			

Complies with MIL-W-16878/4 (Type E) except stranding.

\* Capacitance between conductors.

\*\* Capacitance between one conductor and other conductors connected to shield.

<sup>†</sup> 100 ft. put-up one piece, exact length.

<sup>††</sup> 500 ft. put-up exact, but may contain up to 2 pieces. Minimum length of any one piece is 25 ft.

<sup>▲</sup> 1000 ft. put-up exact, but may contain up to 6 pieces. Minimum length of any one piece is 25 ft.

Teflon is a DuPont trademark.