



## Description:

24 AWG stranded (19x36) 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	24	19x36	SPC - Silver Plated Copper

### Insulation

**Insulation Material:**

Insulation Trade Name	Insulation Material	Wall Thickness (in.)
Teflon®	TFE - Tetrafluoroethylene	.010

**Insulation Resistance:** 100, 000 Megaohms/1000 ft. @ 500 V DC

### 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:** 0.085 in.

## Mechanical Characteristics (Overall)

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

**Bulk Cable Weight:** 9.400 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 15.500 lbs.

**Min. Bend Radius (Install)/Minor Axis:** 0.875 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

## 83304E 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. Capacitance Conductor to Shield:

Capacitance (pF/ft)

46

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

23

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

18

### Max. Operating Voltage - UL:

Voltage

600 V RMS

### Max. Recommended Current:

Current

4 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
83304E 0091000	1,000 FT	9.000 LB	WHITE	E	1 #24 TFE BRD TFE TAPE
83304E 009500	500 FT	5.000 LB	WHITE	E	1 #24 TFE BRD TFE TAPE

### Notes:

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

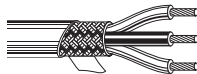
# High-Temperature

## 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

**26 AWG** Stranded (7x34) Silver-plated Copper Conductors • Cabled and Color-coded • Silver-plated Copper Braid Shield (85% Coverage)

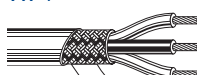
**Extruded TFE Teflon® Insulation • White TFE Teflon Tape-wrapped Jacket**

600V RMS -65°C to 200°C VW-1 	<b>83303E</b>	—	1	White	500 <sup>††</sup> 1000 <sup>▲</sup>	152.4 304.8	3.5 6.0	1.6 2.7	.010	.25	.010	.25	.076	1.93	—	—	44.6	146
	<b>83317E</b>	—	2	White, Black	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	1.4 6.5 14.0	0.6 3.0 6.4	.010	.25	.011	.28	.121	3.07	20.8	68	35.5	116
	<b>83332E</b>	—	3	White, Black, Red	100 <sup>†</sup> 1000 <sup>▲</sup>	30.5 304.8	1.7 17.0	0.8 7.7	.010	.25	.011	.28	.127	3.23	18.8	62	31.4	103
	<b>83347E</b>	—	4	White, Black, Red, Green	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	1.9 10.0 19.0	0.9 4.5 8.6	.010	.25	.011	.28	.137	3.48	18.5	61	30.5	100

MIL-Spec MIL-W-16878/4 (Type E).

**24 AWG** Stranded (19x36) Silver-plated Copper Conductors • Cabled and Color-coded • Silver-plated Copper Braid Shield (85% Coverage)

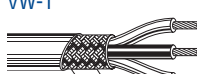
**Extruded TFE Teflon Insulation • White TFE Teflon Tape-wrapped Jacket**

600V RMS -65°C to 200°C VW-1 	<b>83304E</b>	—	1	White	500 <sup>††</sup> 1000 <sup>▲</sup>	152.4 304.8	4.5 8.0	2.0 3.6	.010	.25	.010	.25	.085	2.16	—	—	46	151
	<b>83318E</b>	—	2	White, Black	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	1.6 7.5 16.0	0.7 3.4 7.3	.010	.25	.011	.28	.131	3.33	26.5	87	42.4	139
	<b>83333E</b>	—	3	White, Black, Red	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 304.8 304.8	1.9 10.0 19.0	0.9 4.5 8.6	.010	.25	.011	.28	.137	3.48	21.9	72	36.8	121
	<b>83348E</b>	—	4	White, Black, Red, Green	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	2.3 12.0 23.0	1.0 5.4 10.4	.010	.25	.011	.28	.149	3.79	21.9	72	36.8	121

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

**22 AWG** Stranded (19x34) 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>83305E</b>	—	1	White	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	1.1 5.0 9.0	0.5 2.3 4.1	.010	.25	.010	.25	.091	2.31	—	—	57.9	190
	<b>83319E</b>	—	2	White, Black	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	1.9 10.0 19.0	0.9 4.5 8.6	.010	.25	.011	.28	.143	3.63	29.9	98	49.2	161
	<b>83334E</b>	—	3	White, Black, Red	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	2.7 12.5 24.0	1.2 5.7 10.9	.010	.25	.011	.28	.150	3.81	27.4	90	45.7	150
	<b>83349E</b>	—	4	White, Black, Red, Green	100 <sup>†</sup> 500 <sup>††</sup> 1000 <sup>▲</sup>	30.5 152.4 304.8	3.1 14.5 28.0	1.4 6.6 12.7	.010	.25	.011	.28	.163	4.14	27.4	90	45.7	150

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

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

† 100 ft. put-up one piece, exact length.  
†† 500 ft. put-up exact, but may contain up to 3 pieces. Minimum length of any one piece is 25 ft.  
▲ Spools may contain more than one piece. Length may vary ±10% from length shown.

Teflon is a DuPont trademark.