

83319E Multi-Conductor - MIL-W-16878/4 (Type E), 2 Conductors Cabled



Description:

22 AWG stranded (19x34) 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
2	22	19x34	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	.011

Overall Cabling

Overall Cabling Lay Length & Direction:

Length (in.)	Twists (ft.)
1.1	10.9

Overall Cabling Color Code Chart:

Number	Color
1	White
2	Black

Overall Nominal Diameter: 0.143 in.

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 17.300 lbs/1000 ft.

Max. Recommended Pulling Tension: 43.800 lbs.

Min. Bend Radius (Install)/Minor Axis: 1.500 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

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EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2005
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
Military Specification:	MIL-W-16878/4 (Type E, except stranding, insulated conductors)

Flame Test

UL Flame Test:	UL1685 UL Loading, VW-1
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Plenum/Non-Plenum

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

Nom. Inductance:

Inductance (µH/ft)
.138

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
29.9

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
49.2

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
14.6

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
5.7

Max. Operating Voltage - UL:

Voltage
600 V RMS

Max. Recommended Current:

Current
5 Amps per conductor at 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
83319E 009100	100 FT	1.600 LB	WHITE	E	2 #22 TFE BRD TFE TAPE
83319E 0091000	1,000 FT	17.000 LB	WHITE	E	2 #22 TFE BRD TFE TAPE
83319E 009500	500 FT	9.500 LB	WHITE	E	2 #22 TFE BRD TFE TAPE

Notes:

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

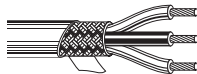
High-Temperature

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)

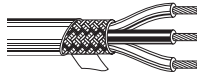
Extruded TFE Teflon® Insulation • White TFE Teflon Tape-wrapped Jacket

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

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)

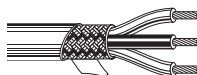
Extruded TFE Teflon Insulation • White TFE Teflon Tape-wrapped Jacket

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

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 	83305E	—	1	White	100 [†]	30.5	1.1	0.5	.010	.25	.010	.25	.091	2.31	—	—	57.9	190	
					500 ^{††}	152.4	5.0	2.3											
					1000 [▲]	304.8	9.0	4.1											
	83319E	—	2	White, Black	100 [†]	30.5	1.9	0.9	.010	.25	.011	.28	.143	3.63	29.9	98	49.2	161	
500 ^{††}					152.4	10.0	4.5												
1000 [▲]					304.8	19.0	8.6												
83334E	—	3	White, Black, Red	100 [†]	30.5	2.7	1.2	.010	.25	.011	.28	.150	3.81	27.4	90	45.7	150		
				500 ^{††}	152.4	12.5	5.7												
83349E	—	4	White, Black, Red, Green	100 [†]	30.5	3.1	1.4	.010	.25	.011	.28	.163	4.14	27.4	90	45.7	150		
				500 ^{††}	152.4	14.5	6.6												
				1000 [▲]	304.8	28.0	12.7												

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.