



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 |
|--------------|-----|-----------|----------------------------|
| 3 | 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. @ 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.) |
|--------------|--------------|
| 1.75 | 6.9 |

Overall Cabling Color Code Chart:

| Number | Color |
|--------|-------|
| 1 | White |
| 2 | Black |
| 3 | Red |

Overall Nominal Diameter: 0.189 in.

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 38.500 lbs/1000 ft.

Max. Recommended Pulling Tension: 108.800 lbs.

Min. Bend Radius (Install)/Minor Axis: 1.875 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU CE Mark: Yes

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

83336E Multi-Conductor - MIL-W-16878/4 (Type E)

| | |
|---------------------------------------|---|
| 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 |
|----------------|-------------------------|

Plenum/Non-Plenum

| | |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Electrical Characteristics (Overall)

Nom. Inductance:

Inductance (µH/ft)

.114

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

31

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

52.8

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

5.7

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

4.5

Max. Operating Voltage - UL:

Voltage

600 V RMS

Max. Recommended Current:

Current

8.2 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 |
|----------------|----------|-------------|-------|-------|------------------------|
| 83336E 009100 | 100 FT | 4.400 LB | WHITE | E | 3 #18 TFE BRD TFE TAPE |
| 83336E 0091000 | 1,000 FT | 39.000 LB | WHITE | E | 3 #18 TFE BRD TFE TAPE |
| 83336E 009500 | 500 FT | 20.000 LB | WHITE | E | 3 #18 TFE BRD TFE TAPE |

Notes:

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

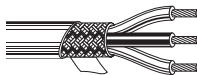
High-Temperature

Overall Braid Shield — Control and Instrumentation Cables

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

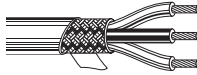
| Description | Part No. | UL NEC/ C(UL) CEC Type | No. of Cond. | Color Code | Standard Lengths | | Standard Unit Weight | | Insulation Thickness | | Jacket Thickness | | Nominal OD | | Nominal Capacitance | | | |
|-------------|----------|------------------------------|--------------------|---------------|------------------|---|-------------------------|----|-------------------------|----|---------------------|----|------------|----|---------------------|---------------|------------------|----------------|
| | | | | | 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  | 83306E | — | 1 | White | 100 [†] 1000 [▲] | 30.5 304.8 | 1.4 14.0 | 0.6 6.4 | .010 | .25 | .010 | .25 | .099 | 2.52 | — | — | 69 | 226 |
| | 83320E | — | 2 | White, Black | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 2.6 12.0 23.0 | 1.2 5.4 10.4 | .010 | .25 | .011 | .28 | .159 | 4.04 | 31.7 | 104 | 51 | 167 |
| | 83335E | — | 3 | White, Black, Red | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 3.3 15.5 30.0 | 1.5 7.0 13.6 | .010 | .25 | .011 | .28 | .168 | 4.27 | 31.7 | 104 | 51 | 167 |
| | 83350E | — | 4 | White, Black, Red, Green | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 4.0 19.0 37.0 | 1.8 8.6 16.8 | .010 | .25 | .011 | .28 | .183 | 4.65 | 31.7 | 104 | 51 | 167 |

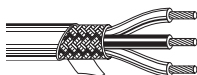
Complies with MIL-W-16878/4 (Type E) except stranding.

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  | 83307E | — | 1 | White | 1000 [▲] | 304.8 | 17.0 | 7.7 | .011 | .28 | .010 | .25 | .109 | 2.77 | — | — | 71.5 | 235 |
| | 83321E | — | 2 | White, Black | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 3.2 15.0 29.0 | 1.5 6.8 13.2 | .011 | .28 | .011 | .28 | .179 | 4.55 | 31 | 102 | 52.8 | 173 |
| | 83336E | — | 3 | White, Black, Red | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 4.2 20.0 39.0 | 1.9 9.1 17.7 | .011 | .28 | .011 | .28 | .189 | 4.80 | 31 | 102 | 52.8 | 173 |
| | 83351E | — | 4 | White, Black, Red, Green | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 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  | 83308E | — | 1 | White | 500 ^{††} 1000 [▲] | 152.4 304.8 | 9.5 20.0 | 4.3 9.1 | .012 | .31 | .011 | .28 | .120 | 3.05 | — | — | 72.5 | 238 |
| | 83322E | — | 2 | White, Black | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 3.8 18.0 35.0 | 1.7 8.2 15.9 | .012 | .31 | .011 | .28 | .197 | 5.00 | 36 | 118 | 60 | 197 |
| | 83337E | — | 3 | White, Black, Red | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 5.0 24.5 49.0 | 2.3 11.1 22.2 | .012 | .31 | .011 | .28 | .209 | 5.31 | 30.7 | 101 | 53 | 174 |
| | 83352E | — | 4 | White, Black, Red, Green | 100 [†] 500 ^{††} 1000 [▲] | 30.5 152.4 304.8 | 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.

[†] 100 ft. put-up one piece, exact length.

^{††} 500 ft. put-up exact, but may contain up to 2 pieces. Minimum length of any one piece is 25 ft.

[▲] 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.