



**Product:** [83337E](#) 

Electronic, 3 C #16 Str SPC, TFE Ins, OA SPC Brd, TFE Tape Jkt, MIL-W-16878/4 (Type E)

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## Product Description

High Temperature Electronic, 3 Conductor 16AWG (19x29) Silver Plated Copper, TFE Insulation, Overall Silver Plated Copper Braid(85%) Shield, TFE Tape Outer Jacket, MIL-W-16878/4 (Type E)

## Technical Specifications

### Product Overview

|                        |                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | MIL-W-16878/4 (Type E) Spec; extreme high/low temperature environments; up to 600V analog signals ; up to 600V voltage control |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------|

### Physical Characteristics (Overall)

#### Conductor

| Element      | AWG | Stranding | Material             | No. of Conductors |
|--------------|-----|-----------|----------------------|-------------------|
| Conductor(s) | 16  | 19x29     | SC - Silvered Copper | 3                 |

|                  |   |
|------------------|---|
| Conductor Count: | 3 |
|------------------|---|

#### Insulation

| Element      | Material                       | Material Trade Name | Nominal Wall Thickness |
|--------------|--------------------------------|---------------------|------------------------|
| Conductor(s) | PTFE - Polytetrafluoroethylene | Teflon®             | 0.011 in               |

#### Color Chart

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

#### Outer Shield Material

| Type  | Material             | Coverage [%] |
|-------|----------------------|--------------|
| Braid | SC - Silvered Copper | 85 %         |

#### Outer Jacket Material

| Material                       | Material Trade Name | Nominal Diameter | Nominal Wall Thickness |
|--------------------------------|---------------------|------------------|------------------------|
| PTFE - Polytetrafluoroethylene | Teflon®             | 0.209 in         | 0.011 in               |

### Electrical Characteristics

#### Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 4.4 Ohm/1000ft        | 6.6 Ohm/1000ft           |

#### Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|-----------------------------------------|---------------------------------------------------------|
| 30.7 pF/ft                              | 53 pF/ft                                                |

#### Inductance

| Nominal Inductance |
|--------------------|
| 0.148 µH/ft        |

Current

| Max. Recommended Current [A] |
|------------------------------|
| 11 Amps per conductor @ 25°C |

Voltage

| Non-UL Voltage Rating |
|-----------------------|
| 600 V RMS             |

Temperature Range

|                       |                 |
|-----------------------|-----------------|
| Operating Temp Range: | -65°C To +200°C |
|-----------------------|-----------------|

Mechanical Characteristics

|                                  |               |
|----------------------------------|---------------|
| Bulk Cable Weight:               | 45 lbs/1000ft |
| Max Recommended Pulling Tension: | 130.9 lbs     |
| Min Bend Radius/Minor Axis:      | 2.25 in       |

Standards

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| CPR Euroclass:          | Eca                                                             |
| Military Specification: | MIL-W-16878/4 (Type E except stranding), (insulated conductors) |
| Other Specification:    | NEMA HP3                                                        |

Applicable Environmental and Other Programs

|                                       |                               |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV):        | Yes                           |
| EU Directive 2003/96/EC (BFR):        | Yes                           |
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive 2015/863/EU:             | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                           | Yes                           |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2005-01-01                    |
| CA Prop 65:                           | Yes                           |
| MII Order #39 (China RoHS):           | Yes                           |

Flammability, LS0H, Toxicity Testing

|                       |               |
|-----------------------|---------------|
| ISO/IEC Flammability: | IEC 60332-1-2 |
| UL voltage rating:    | 600 V RMS     |

Plenum/Non-Plenum

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

Part Number

Variants

| Item #         | Color | Putup Type | Length   | UPC          |
|----------------|-------|------------|----------|--------------|
| 83337E 009100  | White | Reel       | 100 ft   | 612825204268 |
| 83337E 009500  | White | Reel       | 500 ft   | 612825204282 |
| 83337E 0091000 | White | Reel       | 1,000 ft | 612825204275 |

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| Footnote: | E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'. |
|-----------|----------------------------------------------------------------------------|

Product Notes

|        |                                                                                                         |
|--------|---------------------------------------------------------------------------------------------------------|
| Notes: | Teflon« is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc. |
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History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.298 Revision Date: 05-05-2020 |
|----------------------|--------------------------------------------------|

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