

**ALPHA WIRE**  
**CUSTOMER PRODUCT SPECIFICATION**

**Part Number: 45154**  
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**Issue: 15**  
**Issue Date: 1/19/2015**  
**Effective Date: 1/31/2015**

**A. Construction**

**Diameters (In)**

- |                |                             |       |
|----------------|-----------------------------|-------|
| 1) Component 1 | 4 X 1 COND                  |       |
| a) Conductor   | 20 (7/28) AWG Tinned Copper | 0.038 |
| b) Insulation  | 0.016" Wall, Nom. TPE       | 0.070 |
| (1) Color Code | Alpha Wire Color Code D     |       |

Cond	Color	Cond	Color	Cond	Color
1	BLACK	3	WHITE		
2	RED	4	GREEN		

- |                   |  |                    |
|-------------------|--|--------------------|
| 2) Cable Assembly | 4 Components Cabled  |                    |
| a) Twists:        | 6.0 Twists/foot (min)  |                    |
| b) Core Wrap      | Nonwoven Polyester Tape, 25% Overlap, Min.   |                    |
| 3) Shield:        | A/P/A Tape, 25% Overlap, Min.  |                    |
| a) Drain Wire     | 20 (7/28) AWG Tinned Copper  |                    |
| b) Braid          | Tinned Copper, 70% Coverage, Min.  |                    |
| 4) Jacket         | 0.045" Wall, Nom., TPE   | 0.292 (0.304 Max.) |
| a) Color(s)       | Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White  |                    |
| b) Ripcord        | 1 End 810 Denier Nylon   |                    |
| c) Print          | ALPHA WIRE-* P/N 45154 4C 20 AWG<br>XTRAGUARD(R) 4 (UL) TYPE PLTC 105C SUN RES OR AWM<br>20237/21918 125C 300 V OR<br>CRU AWM I/II A/B 125C 300 V FT1<br>P-07-KA140023-MSHA CE ROHS<br>(SEQ FOOTAGE)<br>* = Factory Code |                    |

**B. Applicable Specifications**

- |                      |   |                              |
|----------------------|---|------------------------------|
| 1) UL                | AWM/STYLE 20237                             | 125°C / 300 V <sub>RMS</sub> |
|                      | PLTC  | 105°C                        |
|                      | AWM/STYLE 21918                             | 125°C / 300 V <sub>RMS</sub> |
|                      | SUN RES                                     |                              |
| 2) CSA International | C(RU) AWM I/II A/B FT1                      | 125°C / 300 V <sub>RMS</sub> |
|                      | SUN RES (Black only)                        |                              |
| 3) Other             | PENNSYLVANIA BUREAU OF MINE SAFETY APPROVED |                              |
| 4) CE:               | EU Low Voltage Directive 2006/95/EC         |                              |

**C. Environmental Compliance**

- |                               |  |
|-------------------------------|--|
| 1) CE:                        | EU Directive 2011/65/EU (RoHS2):<br>This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for <a href="#">RoHS C of C</a> . |
| 2) California Proposition 65: | The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.   |

**D. Physical & Mechanical Properties**

- |                        |                    |
|------------------------|--------------------|
| 1) Temperature Range   | -50 to 125°C       |
| 2) Bend Radius         | 10X Cable Diameter |
| 3) Pull Tension        | 48 Lbs, Maximum    |
| 4) Sunlight Resistance | Yes                |

**E. Electrical Properties**

- |                       |   |
|-----------------------|---|
|                       | (For Engineering purposes only)                   |
| 1) Voltage Rating     | 300 V <sub>RMS</sub>                              |
| 2) Capacitance        | 22.6 pF/ft @1 kHz, Nominal Conductor to Conductor |
| 3) Ground Capacitance | 41 pF/ft @1 kHz, Nominal                          |
| 4) Inductance         | 0.19 µH/ft, Nominal                               |
| 5) Conductor DCR      | 10.2 Ω/1000ft @20°C, Nominal                      |
| 6) OA Shield DCR      | 3 Ω/1000ft @20°C, Nominal                         |

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**F. Other**

- 1) Packaging                                      Flange x Traverse x Barrel (inches)
  - a) Bulk(Made-to-order)
- 2) Notes:
  - a) Print legend will contain CSA SUN RES on black cables only.

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