

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

**Part Number: 25452**  
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**Issue: 13**  
**Issue Date: 12/20/2012**  
**Effective Date: 1/4/2013**

**A. Construction**

**Diameters (In)**

- |                |                         |       |
|----------------|-------------------------|-------|
| 1) Component 1 | 2 X 1 PAIR              |       |
| a) Conductor   | 20 (7/28) AWG TC        | 0.038 |
| b) Insulation  | 0.016" Wall, Nom. PVC   | 0.070 |
| (1) Color Code | Alpha Wire Color Code A |       |

Pair	Color	Pair	Color	Pair	Color
1	BLACK-RED	2	BLACK-WHITE		

- |                   |   |                    |
|-------------------|---|--------------------|
| c) Pair           | 2/Cond Cabled Together  |                    |
| (1) Twists:       | 6.0 Twists/foot (min)   |                    |
| 2) Cable Assembly | 2 Components Cabled   |                    |
| a) Twists:        | 4.4 Twists/foot (min)   |                    |
| b) Core Wrap      | Nonwoven Polyester Tape, 25% Overlap, Min.                        |                    |
| 3) Shield:        | Alum/Mylar Tape, 25% Overlap, Min.                                |                    |
| a) Foil Direction | Foil Facing In  |                    |
| b) Drain Wire     | 20 (7/28) AWG TC  |                    |
| 4) Jacket         | 0.032" Wall, Nom., Polyurethane (TPU)                             | 0.302 (0.316 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 25452  |                    |
|                   | XTRAGUARD(R) 2 RU AWM 20668 VW-1 --- LLXXXXXX CSA                 |                    |
|                   | AWM I/II A/B 90C 300 VOLTS FT1 CE                                 |                    |
|                   | ROHS (SEQ FOOTAGE)  |                    |
|                   | * = Factory Code  |                    |
- [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]*

**B. Applicable Specifications**

- |                      |                                     |                              |
|----------------------|-------------------------------------|------------------------------|
| 1) UL                |                                     |                              |
| a) Component 1       | AWM/STYLE 1569                      | 105°C / 300 V <sub>RMS</sub> |
| b) Overall           | AWM/STYLE 20668                     | 90°C / 300 V <sub>RMS</sub>  |
|                      | VW-1                                |                              |
| 2) CSA International | AWM I/II A/B                        | 90°C / 300 V <sub>RMS</sub>  |
|                      | FT1                                 |                              |
| 3) 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) REACH Regulation (EC 1907/2006): | This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see <a href="#">Alpha's REACH SVHC Declaration</a> .  |
| 3) 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   | -30 to 90°C        |
| 2) Bend Radius         | 10X Cable Diameter |
| 3) Pull Tension        | 44 Lbs, Maximum    |
| 4) Sunlight Resistance | Yes                |

**E. Electrical Properties**

- |                       |                                 |
|-----------------------|---------------------------------|
|                       | (For Engineering purposes only) |
| 1) Voltage Rating     | 300 V <sub>RMS</sub>            |
| 2) Mutual Capacitance | 39 pf/ft @1 kHz, Nominal        |

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|-----------------------------|--------------------------------------|
| 3) Ground Capacitance       | 70 pf/ft @1 kHz, Nominal             |
| 4) Characteristic Impedance | 55 $\Omega$                          |
| 5) Inductance               | 0.19 $\mu$ H/ft, Nominal             |
| 6) Conductor DCR            | 10.4 $\Omega$ /1000ft @20°C, Nominal |
| 7) OA Shield DCR            | 8.2 $\Omega$ /1000ft @20°C, Nominal  |

**F. Other**

- |                        |                                     |
|------------------------|-------------------------------------|
| 1) Packaging           | Flange x Traverse x Barrel (inches) |
| a) Bulk(Made-to-order) |                                     |

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