

# ALPHA WIRE

## CUSTOMER PRODUCT SPECIFICATION

**Part Number: 518235**  
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**Issue: 2**  
**Issue Date: 10/11/2012**  
**Effective Date: 11/20/2012**

**A. Construction**

Diameters (In)

- 1) Component 1                      1 X 1 CABLE  
     a) Cable                            75022                                      0.325  
     (1) Color(s)

Element #	Color	Element #	Color	Element #	Color
1	BLACK				

- 2) Component 2                      1 X 1 COND  
     a) Conductor                      22 (7/30) AWG TC                      0.030  
     b) Insulation                      0.016" Wall, Nom. TPE                0.062  
     (1) Color(s)

Cond	Color	Cond	Color	Cond	Color
1	PURPLE				

- 3) Component 3                      4 X 1 COND  
     a) Conductor                      16 (26/30) AWG TC                      0.060  
     b) Insulation                      0.016" Wall, Nom. TPE                0.092  
     (1) Color(s)

Cond	Color	Cond	Color	Cond	Color
1	WHITE	3	BROWN		
2	BLACK	4	GREY		

- 4) Cable Assembly                    Component1 in center, Component2 and Component3 around  
     a) Twists:                            1.6 Twists/foot (min)  
     b) Core Wrap                        Clear Mylar Tape, 25% Overlap, Min.  
     5) Shield                              TC BRAID Shield, 90% Coverage, Min.  
     a) Drain Wire                        22 (7/30) AWG TC  
     6) Jacket                              0.055" Wall, Nom., TPE-C                0.656+/- 0.018  
     a) Color(s)                            BLACK  
     b) Jacket Separator                Tissue Tape, 25% Overlap, Min.  
     c) Print                                MILLER ELECTRIC MFG. CO., - APPLETON, WI USA  
     d) Marker Tape                      For identification

**B. Applicable Specifications**  
**C. Environmental Compliance**

- 1) EU Directive 2002/95/EC(RoHS):  
     All materials used in the manufacture of this part are in compliance with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment.
- 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 [Alpha's REACH SVHC Declaration](#).

**D. Physical & Mechanical Properties**

- 1) Temperature Range                -50 to 105°C  
     2) Bend Radius                      10X Cable Diameter  
     3) Pull Tension                      112 Lbs, Maximum

**E. Electrical Properties**

- (For Engineering purposes only)  
     1) Voltage Rating                    300 V<sub>RMS</sub>  
     2) Component 2  
         a) Ground Capacitance            51 pf/ft @1 kHz, Nominal  
         b) Inductance                      0.06 µH/ft, Nominal  
         c) Conductor DCR                    16.5 Ω/1000ft @20°C, Nominal

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*Handwritten signature and date: 11/20/12*

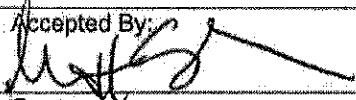
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- 3) Component 3
  - a) Capacitance 30 pf/ft @1 kHz, Nominal Conductor to Conductor
  - b) Ground Capacitance 54 pf/ft @1 kHz, Nominal
  - c) Inductance 0.17  $\mu$ H/ft, Nominal
  - d) Conductor DCR 4.4  $\Omega$ /1000ft @20°C, Nominal
- 4) OA Shield DCR 1.14  $\Omega$ /1000ft @20°C, Nominal
- F. Other
  - 1) Packaging Flange x Traverse x Barrel (inches)
    - a) Bulk(Made-to-order)
  - 2) Notes:
    - a) Component1 verified to TIA-568-C.2 Cat5e but not guaranteed after this composite cable completed.
    - b) Jacket printing: 1/4" or wider white stripe interrupted with "MILLERELECTRIC MFG. CO., - APPLETON, WI USA". Print is every 12".
    - c) Component2 and Component3 insulation are same as 518070's insulation - 039160.

**This Design is custom, Made-To-Order & once accepted, the order is NON-CANCELLABLE & NON-RETURNABLE.**

Accepted By: 	Date: 4/18/2014
Company: MILLER ELECTRIC	Title: LAB TECHNICIAN

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