

ALPHA WIRE

CUSTOMER PRODUCT SPECIFICATION

Part Number: 518222
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Issue: 1
Issue Date: 8/2/2012
Effective Date: 9/27/2012

A. Construction

Diameters (In)

- | | | | |
|----|----------------|-------------------------|-------|
| 1) | Component 1 | 19 X 1 PAIR | |
| | a) Conductor | 28 (SOLID) AWG TC | 0.013 |
| | b) Insulation | 0.006" Wall, Nom. FEP | 0.025 |
| | (1) Color Code | Alpha Wire Color Code A | |

Pair	Color	Pair	Color	Pair	Color
1	BLACK-RED	8	RED-GREEN	15	GREEN-WHITE
2	BLACK-WHITE	9	RED-WHITE	16	GREEN-BROWN
3	BLACK-GREEN	10	RED-BLUE	17	GREEN-ORANGE
4	BLACK-BLUE	11	RED-YELLOW	18	GREEN-YELLOW
5	BLACK-BROWN	12	RED-BROWN	19	WHITE-BLUE
6	BLACK-YELLOW	13	RED-ORANGE		
7	BLACK-ORANGE	14	GREEN-BLUE		

- | | | | |
|----|----------------|-------------------------|-------|
| c) | Pair | 2/Cond Cabled Together | |
| | (1) Twists: | 16.0 Twists/foot (min) | |
| 2) | Component 2 | 4 X 1 COND | |
| | a) Conductor | 22 (7/30) AWG TC | 0.030 |
| | b) Insulation | 0.010" Wall, Nom. FEP | 0.050 |
| | (1) Color Code | Alpha Wire Color Code E | |

Cond	Color	Cond	Color	Cond	Color
1	BLACK	3	RED		
2	BROWN	4	ORANGE		

- | | | | |
|----|-------------------|---|--------------------|
| 3) | Cable Assembly | 23 Components Cabled | |
| | a) Twists: | 3.0 Twists/foot (min) | |
| 4) | Shield: | Alum/Mylar Tape, 25% Overlap, Min. | |
| | a) Foil Direction | Foil Facing In | |
| | b) Drain Wire | 22 (7/30) AWG TC | |
| 5) | Jacket | 0.010" Wall, Nom., FEP | 0.298 (0.320 Max.) |
| | a) Color(s) | VIOLET | |
| | b) Print | ALPHA WIRE-* P/N 518222 19PR 28 AWG 4C 22 AWG | |
| | | * = Factory Code | |

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: -80 to 150°C
- 2) Bend Radius: 10X Cable Diameter
- 3) Pull Tension: 75 Lbs, Maximum

E. Electrical Properties

- (For Engineering purposes only)
- 1) Voltage Rating: 300 V_{RMS}
 - 2) Component 1
 - a) Mutual Capacitance: 13.7 pf/ft @1 kHz, Nominal
 - b) Ground Capacitance: 24.7 pf/ft @1 kHz, Nominal
 - c) Characteristic Impedance: 106 Ω
 - d) Inductance: 0.19 μH/ft, Nominal
 - e) Conductor DCR: 71 Ω/1000ft @20°C, Nominal

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- 3) Component 2
 - a) Capacitance 20.8 pf/ft @1 kHz, Nominal Conductor to Conductor
 - b) Ground Capacitance 37 pf/ft @1 kHz, Nominal
 - c) Inductance 0.18 μ H/ft, Nominal
 - d) Conductor DCR 16.4 Ω /1000ft @20°C, Nominal
- 4) Overall
 - a) OA Shield DCR 10.4 Ω /1000ft @20°C, Nominal

F. Other

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

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

Accepted By:	Date:
Company:	Title:

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