

# Customer Specification

## PART NO. 6410

### Construction

|                   |                             |                                                                                                                                                                                                                                   |                             | Diameters (In)     |                               |
|-------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------|-------------------------------|
| 1) Component 1    |                             | 18 X 1 PAIR                                                                                                                                                                                                                       |                             |                    |                               |
| a) Conductor      |                             | 24 (7/32) AWG TC                                                                                                                                                                                                                  |                             | 0.024              |                               |
| b) Insulation     |                             | 0.016" Wall, Nom. Polyethylene(PE)                                                                                                                                                                                                |                             | 0.056              |                               |
| (1) Color Code    |                             | Alpha Wire Color Code M                                                                                                                                                                                                           |                             |                    |                               |
| Pair              | Color                       | Pair                                                                                                                                                                                                                              | Color                       | Pair               | Color                         |
| 1                 | BLUE/WHITE - WHITE/BLUE     | 7                                                                                                                                                                                                                                 | ORANGE/RED - RED/ORANGE     | 13                 | GREEN/BLACK - BLACK/GREEN     |
| 2                 | ORANGE/WHITE - WHITE/ORANGE | 8                                                                                                                                                                                                                                 | GREEN/RED - RED/GREEN       | 14                 | BROWN/BLACK - BLACK/BROWN     |
| 3                 | GREEN/WHITE - WHITE/GREEN   | 9                                                                                                                                                                                                                                 | BROWN/RED - RED/BROWN       | 15                 | SLATE/BLACK - BLACK/SLATE     |
| 4                 | BROWN/WHITE - WHITE/BROWN   | 10                                                                                                                                                                                                                                | SLATE/RED - RED/SLATE       | 16                 | BLUE/YELLOW - YELLOW/BLUE     |
| 5                 | SLATE/WHITE - WHITE/SLATE   | 11                                                                                                                                                                                                                                | BLUE/BLACK - BLACK/BLUE     | 17                 | ORANGE/YELLOW - YELLOW/ORANGE |
| 6                 | BLUE/RED - RED/BLUE         | 12                                                                                                                                                                                                                                | ORANGE/BLACK - BLACK/ORANGE | 18                 | GREEN/YELLOW - YELLOW/GREEN   |
| c) Pair           |                             | 2/Cond Cabled Together                                                                                                                                                                                                            |                             |                    |                               |
| (1) Twists:       |                             | 8.0 Twists/foot (min)                                                                                                                                                                                                             |                             |                    |                               |
| 2) Cable Assembly |                             | 18 Components Cabled                                                                                                                                                                                                              |                             |                    |                               |
| a) Twists:        |                             | 1.8 Twists/foot (min)                                                                                                                                                                                                             |                             |                    |                               |
| 3) Shield:        |                             | Alum/Mylar Tape, 25% Overlap, Min.                                                                                                                                                                                                |                             |                    |                               |
| a) Foil Direction |                             | Foil Facing Out                                                                                                                                                                                                                   |                             |                    |                               |
| b) Drain Wire     |                             | 24 (7/32) AWG TC                                                                                                                                                                                                                  |                             |                    |                               |
| c) Braid          |                             | TC,65% Coverage, Min.                                                                                                                                                                                                             |                             |                    |                               |
| 4) Jacket         |                             | 0.047" Wall, Nom.,PVC                                                                                                                                                                                                             |                             | 0.580 (0.606 Max.) |                               |
| a) Color(s)       |                             | SLATE                                                                                                                                                                                                                             |                             |                    |                               |
| b) Print          |                             | ALPHA WIRE-* P/N 6410 18PR 24 AWG<br>SHIELDED 75C (UL) C(UL) TYPE CM OR<br>AWM 2919 LOW VOLTAGE COMPUTER CABLE<br>ROHS<br>* = Factory Code<br>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.] |                             |                    |                               |

### Applicable Specifications

|                      |                |                            |
|----------------------|----------------|----------------------------|
| 1) UL                | AWM/STYLE 2919 | 80°C / 30 V <sub>RMS</sub> |
|                      | CM             | 75°C                       |
|                      | VW-1           |                            |
| 2) CSA International | C(UL) TYPE CM  | 75°C                       |

## Environmental

|                                   |                                                                                                                                                                                                                                                                              |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. Consult Alpha Wire's web site for compliance Date of Manufacture. |
| 2) California Proposition 65:     | The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.                                                                                                                                                         |

## Properties

|                                                       |                            |
|-------------------------------------------------------|----------------------------|
| Physical & Mechanical Properties                      |                            |
| 1) Temperature Range                                  | -20 to 80°C                |
| 2) Bend Radius                                        | 10X Cable Diameter         |
| 3) Pull Tension                                       | 139 Lbs, Maximum           |
| Electrical Properties (For Engineering purposes only) |                            |
| 1) Voltage Rating                                     | 300 V <sub>RMS</sub>       |
| 2) Characteristic Impedance                           | 100                        |
| 3) Mutual Capacitance                                 | 15.5 pf/ft @1 kHz, Nominal |
| 4) Ground Capacitance                                 | 27.5 pf/ft @1 kHz, Nominal |
| 5) Conductor DCR                                      | 26 /1000ft @20°C, Nominal  |
| 6) OA Shield DCR                                      | 2 /1000ft @20°C, Nominal   |

## Other

|                  |                                             |
|------------------|---------------------------------------------|
| <b>Packaging</b> | Flange x Traverse x Barrel (inches)         |
| a) 1000 FT       | 30 x 14 x 12 Continuous length              |
| b) 500 FT        | 24 x 14 x 12 Continuous length              |
| c) 100 FT        | 16 x 11 x 8 Continuous length               |
|                  | <i>[Spool dimensions may vary slightly]</i> |

[www.alphawire.com](http://www.alphawire.com)

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## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:6410

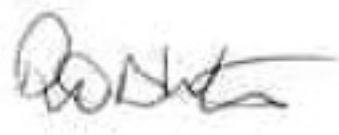
6410 , RoHS-Compliant Commencing With3/1/2005Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.***

| Substance                             | Maximum Control Value     |
|---------------------------------------|---------------------------|
| Lead                                  | 0.1% by weight (1000 ppm) |
| Mercury                               | 0.1% by weight (1000 ppm) |
| Cadmium                               | 0.01% by weight (100 ppm) |
| Hexavalent Chromium                   | 0.1% by weight (1000 ppm) |
| Polybrominated Biphenyls (PBB)        | 0.1% by weight (1000 ppm) |
| Polybrominated Diphenyl Ethers (PBDE) | 0.1% by weight (1000 ppm) |
| Including Deca-BDE                    | 0.1% by weight (1000 ppm) |

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Authorized Signatory for the Alpha Wire Company:



Dave Watson, Director of Engineering & QA

11/1/2012

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