

# Customer Specification

## PART NO. 79101

### Construction

|                     |       |                                                                                                                                                                                        |       | Diameters (In) |       |
|---------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------|-------|
| 1) Component 1      |       | 2 X 1 COND                                                                                                                                                                             |       |                |       |
| a) Conductor        |       | 20 (10/30) AWG TC                                                                                                                                                                      |       | 0.036          |       |
| b) Insulation       |       | 0.0095" Wall, Nom. Modified Polyphenylene Ether                                                                                                                                        |       | 0.055          |       |
| (1) Color Code      |       | Alpha Wire Color Code D                                                                                                                                                                |       |                |       |
| Cond                | Color | Cond                                                                                                                                                                                   | Color | Cond           | Color |
| 1                   | BLACK | 2                                                                                                                                                                                      | RED   |                |       |
| 2) Cable Assembly   |       | 2 Components Cabled                                                                                                                                                                    |       |                |       |
| a) Twists:          |       | 9.6 Twists/foot (min)                                                                                                                                                                  |       |                |       |
| b) Core Wrap        |       | Nonwoven Polyester Tape, 25% Overlap, Min.                                                                                                                                             |       |                |       |
| 3) Shield           |       | TC BRAID Shield,85% Coverage, Min.                                                                                                                                                     |       |                |       |
| 4) Jacket           |       | 0.035" Wall, Nom.,MPPE                                                                                                                                                                 |       | 0.210+/- 0.010 |       |
| a) Color(s)         |       | SLATE                                                                                                                                                                                  |       |                |       |
| b) Jacket Separator |       | Nonwoven Polyester Tape, 25% Overlap, Min.                                                                                                                                             |       |                |       |
| c) Print            |       | ALPHA WIRE-* P/N 79101 2C 20 AWG<br>ECOFLEX(TM) RU AWM 21819 105C 600V OR 21492<br>80C 300V VW-1 CLASS K C(RU) AWM I/II A/B FT1<br>600V 105C CE ROHS (SEQ FOOTAGE)<br>* = Factory Code |       |                |       |

### Applicable Specifications

|                      |                                     |                               |
|----------------------|-------------------------------------|-------------------------------|
| 1) UL                | AWM/STYLE 21819                     | 105°C / 600 V <sub>RMS</sub>  |
|                      | AWM/STYLE 21492                     | 80°C / 300 V <sub>RMS</sub>   |
| 2) CSA International | C(RU) AWM I/II A/B FT1              | 105°C / 600V V <sub>RMS</sub> |
| 3) CE:               | EU Low Voltage Directive 2006/95/EC |                               |

### 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) 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.                                          |
| 3) 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             | -40 to 105°C(static), -5 to 105°C (dynamic)           |
| 2) Bend Radius                   | 6X Cable Diameter(static), 8X Cable Diameter(dynamic) |
| 3) Pull Tension                  | 19 Lbs, Maximum                                       |
| Electrical Properties            |                                                       |
| (For Engineering purposes only)  |                                                       |
| 1) Voltage Rating                | 600 V <sub>RMS</sub>                                  |
| 2) Capacitance                   | 33 pf/ft @1 kHz, Nominal Conductor to Conductor       |
| 3) Ground Capacitance            | 59 pf/ft @1 kHz, Nominal                              |
| 4) Characteristic Impedance      | 50                                                    |
| 5) Inductance                    | 0.17 μH/ft, Nominal                                   |
| 6) Conductor DCR                 | 11.5 /1000ft @20°C, Nominal                           |
| 7) OA Shield DCR                 | 6.8 /1000ft @20°C, Nominal                            |

## Other

|                  |                                             |
|------------------|---------------------------------------------|
| <b>Packaging</b> | Flange x Traverse x Barrel (inches)         |
| a) 1000 FT       | 12 x 10 x 5 Continuous length               |
| b) 100 FT        | 6.5 x 4 x 2.5 Continuous length             |
|                  | <i>[Spool dimensions may vary slightly]</i> |

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## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 79101

79101 , RoHS-Compliant Commencing With 10/22/2012 Production

This document certifies that the Alpha part number cited above are manufactured in accordance with Directive 2011/65/EC of the European Parliament, better known as the RoHS Directive, 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.** Additionally, Alpha certifies that the listed part number is in compliance China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2006.

| 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) ,<br>Including Deca-BDE | 0.1% by weight (1000 ppm)  |

The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of its release. The information provided is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Authorized Signatory for the Alpha Wire Company:

A handwritten signature in black ink, appearing to read 'Dave Watson'.

Dave Watson, Director of Engineering & QA

1/14/2013