

# Customer Specification

## PART NO. 85650

### Construction

|                |         |                                                       |         |                |                     |
|----------------|---------|-------------------------------------------------------|---------|----------------|---------------------|
|                |         |                                                       |         | Diameters (In) |                     |
| 1) Component 1 |         | 50 X 1 COND                                           |         |                |                     |
| a) Conductor   |         | 16 (168(7x24)/38) AWG Bare Copper                     |         | 0.067          |                     |
| b) Insulation  |         | 0.022" Wall, Nom. PVC                                 |         | 0.111          |                     |
| (1) Print      |         | ALPHANUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED |         |                |                     |
| (2) Color(s)   |         |                                                       |         |                |                     |
| Cond           | Color   | Cond                                                  | Color   | Cond           | Color               |
| 1              | RED #1  | 18                                                    | RED #18 | 35             | RED #36             |
| 2              | RED #2  | 19                                                    | RED #19 | 36             | RED #36             |
| 3              | RED #3  | 20                                                    | RED #20 | 37             | RED #37             |
| 4              | RED #4  | 21                                                    | RED #21 | 38             | RED #38             |
| 5              | RED #5  | 22                                                    | RED #22 | 39             | RED #39             |
| 6              | RED #6  | 23                                                    | RED #23 | 40             | RED #40             |
| 7              | RED #7  | 24                                                    | RED #24 | 41             | RED #41             |
| 8              | RED #8  | 25                                                    | RED #25 | 42             | RED #42             |
| 9              | RED #9  | 26                                                    | RED #26 | 43             | RED #43             |
| 10             | RED #10 | 27                                                    | RED #27 | 44             | RED #44             |
| 11             | RED #11 | 28                                                    | RED #28 | 45             | RED #45             |
| 12             | RED #12 | 29                                                    | RED #29 | 46             | RED #46             |
| 13             | RED #13 | 30                                                    | RED #30 | 47             | RED #47             |
| 14             | RED #14 | 31                                                    | RED #31 | 48             | RED #48             |
| 15             | RED #15 | 32                                                    | RED #32 | 49             | RED #49             |
| 16             | RED #16 | 33                                                    | RED #33 | 50             | YELLOW/GREEN /GREEN |
| 17             | RED #17 | 34                                                    | RED #34 |                |                     |

|                     |                                                                                                                                                                                                  |                |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 2) Cable Assembly   | 50 Components Cabled                                                                                                                                                                             |                |
| a) Twists:          | 1.3 Twists/foot (min)                                                                                                                                                                            |                |
| b) Orientation:     | Components to be arranged from<br>INSIDE LAYER to OUTSIDE LAYER                                                                                                                                  |                |
| c) Core Wrap        | REMAI Tape, 25% Overlap, Min.                                                                                                                                                                    |                |
| 3) Jacket           | 0.085" Wall, Nom.,PVC, Oil Resistant                                                                                                                                                             | 1.161+/- 0.052 |
| a) Color(s)         | BLACK                                                                                                                                                                                            |                |
| b) Jacket Separator | Tissue Tape, 25% Overlap, Min.                                                                                                                                                                   |                |
| c) Print            | ALPHA WIRE-* P/N 85650 50C 16 AWG<br>XTRAGUARD(R) CONTINUOUS FLEX CONTROL CABLE<br>RU AWM 2587 CONSTANT FLEXING OR CRU<br>AWM I/II A/B FT1 90C 600V<br>CE ROHS (SEQ FOOTAGE)<br>* = Factory Code |                |

## Applicable Specifications

|                      |                                     |                             |
|----------------------|-------------------------------------|-----------------------------|
| 1) UL                |                                     |                             |
| a) Component 1       | AWM/STYLE 10012                     | 90°C / 600 V <sub>RMS</sub> |
| b) Overall           | AWM/STYLE 2587                      | 90°C / 600 V <sub>RMS</sub> |
| 2) CSA International | C(RU) AWM I/II A/B                  | 90°C / 600 V <sub>RMS</sub> |
|                      | FT1                                 |                             |
| 3) Other             | VDE 0472, Section 803 Oil Test      |                             |
| 4) CE:               | EU Low Voltage Directive 2014/35/EU |                             |

## Environmental

|                                                                          |                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3): |                                                                                                                                                                                                                                                             |
|                                                                          | This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011 and the amending Directive 2015/863/EU of 4 June 2015 . No Exemptions are required for RoHS Compliance on this item. |
| 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.                                                                                                |
| 3) California Proposition 65:                                            | This product may contain substances known to the State of California to cause Cancer or Reproductive Harm, but is exempt from labeling based on                                                                                                             |

## Properties

| Physical & Mechanical Properties |                                                       |
|----------------------------------|-------------------------------------------------------|
| 1) Temperature Range             | -40 to 90°C(static), -5 to 90°C (dynamic)             |
| 2) Bend Radius                   | 8X Cable Diameter(static), 8X Cable Diameter(dynamic) |
| 3) Pull Tension                  | 1056 Lbs, Maximum                                     |
| Electrical Properties            |                                                       |
| (For Engineering purposes only)  |                                                       |
| 1) Voltage Rating                | 600 V <sub>RMS</sub>                                  |
| 2) Capacitance                   | 29 pF/ft @1 kHz, Nominal Conductor to Conductor       |
| 3) Inductance                    | 0.18 µH/ft, Nominal                                   |
| 4) Conductor DCR                 | 4.2 Ω/1000ft @20°C, Nominal                           |

## Other

| Packaging  | Flange x Traverse x Barrel (inches)         |
|------------|---------------------------------------------|
| a) 1000 FT | 48 x 26 x 18 Continuous length              |
| b) 500 FT  | 48 x 26 x 18 Continuous length              |
| c) 100 FT  | 48 x 26 x 18 Continuous length              |
|            | <i>[Spool dimensions may vary slightly]</i> |

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# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 85650

85650, RoHS-Compliant Commencing With 1/1/2008 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

| 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) , |                           |
| Including Deca-BDE                      | 0.1% by weight (1000 ppm) |
| Bis(2-ethylhexyl) phthalate (DEHP)      | 0.1% by weight (1000 ppm) |
| Butyl benzyl phthalate (BBP)            | 0.1% by weight (1000 ppm) |
| Dibutyl phthalate (DBP)                 | 0.1% by weight (1000 ppm) |
| Diisobutyl phthalate (DIBP)             | 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:

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

Dave Watson, Director of Engineering

1/8/2024

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