

# **Customer Specification**

#### **PART NO. M13222**

#### **Construction**

|                   |            |      |       |      |            | Diameters (In)   |                    |
|-------------------|------------|------|-------|------|------------|--|--------------------|
| 1) Component 1    |            |      |       |      | 2 X 1 COND |  |                    |
| a) Conductor      |            |      |       |      |            | 24 (7/32) AWG Tinned Copper  | 0.024              |
| b) Insulation     |            |      |       |      |            | 0.016" Wall, Nom. Polyethylene(PE)   | 0.056              |
| (1) Color(s)      |            |      |       |      |            |  |                    |
| Cond              | Color      | Cond | Color | Cond | Color      |  |                    |
| 1                 | BLACK      | 2    | CLEAR |      |            |  |                    |
| 2) Cable          | e Assembly |      |       |      |            | 2 Components Cabled  |                    |
| a) Twists         | s:         |      |       |      |            | 9.6 Twists/foot (min)  |                    |
| b) Orientation:   |            |      |       |      |            | Components to be arranged from INSIDE LAYER to OUTSIDE LAYER   |                    |
| 3) Shield:        |            |      |       |      |            | Alum/Mylar Tape, 25% Overlap, Min.   |                    |
| a) Foil Direction |            |      |       |      |            | Foil Facing Out  |                    |
| b) Drain Wire     |            |      |       |      |            | 24 (7/32) AWG Tinned Copper  |                    |
| 4) Jacket         |            |      |       |      |            | 0.025" Wall, Nom.,PVC  | 0.166 (0.176 Max.) |
| a) Color(s)       |            |      |       |      |            | SLATE  |                    |
| b) Print          |            |      |       |      |            | ALPHA WIRE-* P/N M13222 2C 24 AWG EXXXXX SHIELDED CM (UL) C(UL) 75C OR AWM 2092 CE ROHS * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.] | -                  |

## **Applicable Specifications**

| 1) UL                | AWM/STYLE 2092                      | 60°C / 300 V <sub>RMS</sub> |
|----------------------|-------------------------------------|-----------------------------|
|                      | СМ                                  | 75°C                        |
| 2) CSA International | C(UL) TYPE CM                       | 75°C                        |
| 3) 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 the Consent Judgement. See the Alpha Wire website for more information.                                     |

## **Properties**

| Physical & Mechanical Properties |   |  |
|----------------------------------|---|--|
| 1) Temperature Range             | -20 to 75°C                                       |  |
| 2) Bend Radius                   | 10X Cable Diameter                                |  |
| 3) Pull Tension                  | 10.6 Lbs, Maximum                                 |  |
| <b>Electrical Properties</b>     | (For Engineering purposes only)                   |  |
| 1) Voltage Rating                | 300 V <sub>RMS</sub>                              |  |
| 2) Capacitance                   | 17.8 pF/ft @1 kHz, Nominal Conductor to Conductor |  |
| 3) Ground Capacitance            | 32 pF/ft @1 kHz, Nominal                          |  |
| 4) Characteristic Impedance      | 87 Ω  |  |
| 5) Inductance                    | 0.22 μH/ft, Nominal                               |  |
| 6) Conductor DCR                 | 26 Ω/1000ft @20°C, Nominal                        |  |
| 7) OA Shield DCR                 | 19.6 Ω/1000ft @20°C, Nominal                      |  |

## Other

| Packaging              | Flange x Traverse x Barrel (inches)  |  |
|------------------------|--------------------------------------|--|
| a) 1000 FT             | 12 x 5.94 x 5 Continuous length      |  |
| b) 500 FT              | 10.5 x 5 x 3.5 Continuous length     |  |
| c) 100 FT              | 6.5 x 2 x 1.9 Continuous length      |  |
| d) Bulk(Made-to-order) |                                      |  |
|                        | [Spool dimensions may vary slightly] |  |
|                        |                                      |  |

#### www.alphawire.com

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#### **EU/China ROHS CERTIFICATE OF COMPLIANCE**

To Whom It May Concern:

Alpha Wire Part Number: M13222

M13222, RoHS-Compliant Commencing With 01/01/2006 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 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. T the list of restricted substances to 10 items (commonly known as RoHS 3) The reader is referred to these Directives for the specific definitio **Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control c

| 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 diguide 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 context Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA 31/03/2025

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