

## Customer Specification

# PART NO. 3241

## Construction

|                   |       |      |       |      |       | Diameter ("in")  |                    |
|-------------------|-------|------|-------|------|-------|--|--------------------|
| 1) Component 1    |       |      |       |      |       | 2 x 1 COND   |                    |
| a) Conductor      |       |      |       |      |       | 18 (19/30) AWG Tinned Copper                                 | 0.050              |
| b) Insulation     |       |      |       |      |       | 0.010" Wall, Nom. PVC/ 0.003" Wall NYLON                     | 0.076              |
| (1) Color Code    |       |      |       |      |       | Alpha Wire Color Code G                                      |                    |
| Cond              | Color | Cond | Color | Cond | Color |  |                    |
| 1                 | WHITE | 2    | BLACK |      |       |  |                    |
| 2) Cable Assembly |       |      |       |      |       | 2 Components Cabled  |                    |
| a) Twists         |       |      |       |      |       | 5.3 Twists/foot (min.)                                       |                    |
| b) Orientation    |       |      |       |      |       | Components to be arranged from INSIDE LAYER-to-OUTSIDE LAYER |                    |
| c) Core Wrap      |       |      |       |      |       | Clear Mylar Tape, 25% Overlap (min.)                         |                    |
| 3) Shield         |       |      |       |      |       | Tinned Copper BRAID Shield,90% Coverage (min.)               |                    |
| 4) Jacket         |       |      |       |      |       | 0.021" Wall, Nom. PVC  | 0.219 (0.233 max.) |
| a) Color(s)       |       |      |       |      |       | SLATE  |                    |
| b) Print          |       |      |       |      |       | ALPHA WIRE-* P/N 3241<br>CE ROHS<br>* = Factory Code         |                    |

## Applicable Specifications

|                |                                     |                              |
|----------------|-------------------------------------|------------------------------|
| 1) Military    |                                     |                              |
| a) Component 1 | MIL-W-16878/Type B/N                | 105°C / 600 V <sub>RMS</sub> |
| 2) CE          | EU Low Voltage Directive 2014/35/EU |                              |

## Environmental

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|   |   |
|---|---|
| 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 detail.  |
|   |   |

## Properties

| Physical & Mechanical Properties     |   |
|--------------------------------------|---|
| 1) Temperature Range                 | -55 to 105°C                                    |
| 2) Bend Radius                       | 10X Cable Diameter                              |
| 3) Pull Tension                      | 34 lbs. (max.)                                  |
| Electrical Properties                |   |
| <i>For Engineering purposes only</i> |   |
| 1) Voltage Rating                    | 600 V <sub>RMS</sub>                            |
| 2) Capacitance                       | 63 pF/ft @1 kHz, Nominal Conductor-to-Conductor |
| 3) Ground Capacitance                | 113 pF/ft @1 kHz, Nominal                       |
| 4) Characteristic Impedance          | 35 ω  |
| 5) Inductance                        | 0.17 μH/ft, Nominal                             |
| 6) Conductor DCR                     | 5.9 ω/1000ft @20°C, Nominal                     |
| 7) OA Shield DCR                     | 4.6 ω/1000ft @20°C, Nominal                     |
|                                      |   |

## Other

| Packaging  | Flange x Traverse x Barrel (inches)        |
|------------|--|
| a) 1000 FT | 12 x 10.5 x 5 Continuous Length            |
| b) 500 FT  | 12 x 5.94 x 5 Continuous Length            |
| c) 100 FT  | 6.5 x 4 x 2.5 Continuous Length            |
|            | <i>Spool dimensions may vary slightly.</i> |
|            |  |

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

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374

Tel: 1-800-52 ALPHA

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## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 3241

3241, RoHS-Compliant Commencing With 01/10/2005 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 Union (2011/65/EU), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The list of restricted substances to 10 items (commonly known as RoHS 3) The reader is referred to these Directives for the specific definitions. **Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control"

### Substance

Lead  
Mercury  
Cadmium  
Hexavalent Chromium  
Polybrominated Biphenyls (PBB)  
Polybrominated Diphenyl Ethers (PBDE) ,  
Including Deca-BDE  
Bis(2-ethylhexyl) phthalate (DEHP)  
Butyl benzyl phthalate (BBP)  
Dibutyl phthalate (DBP)  
Diisobutyl phthalate (DIBP)

### Maximum Control Value

0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
0.01% by weight (100 ppm)  
0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
  
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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 issuance. This document is intended to provide guidance 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 provide regulatory information for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulatory requirements. Authorized Signatory for the Alpha Wire:

A handwritten signature in blue ink, appearing to read 'QBW', with a long horizontal line extending to the right.

Dave Watson, Director of Engineering & QA 15/09/2025

Alpha Wire  
711 Lidgerwood Ave.  
Elizabeth, NJ 07207  
Tel: 1-908-925-8000