

## Customer Specification

### PART NO. 74005

## Construction

|                     |       |      |        |      |       | Diameter ("in")                                                                                                                           |                    |
|---------------------|-------|------|--------|------|-------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1) Component 1      |       |      |        |      |       | 1 x 4 COND                                                                                                                                |                    |
| a) Conductor        |       |      |        |      |       | 22 (19/34) AWG Tinned Copper                                                                                                              | 0.032              |
| b) Insulation       |       |      |        |      |       | 0.0145" Wall, Nom. Polypropylene (PP)                                                                                                     | 0.061              |
| (1) Color(s)        |       |      |        |      |       |                                                                                                                                           |                    |
| Cond                | Color | Cond | Color  | Cond | Color |                                                                                                                                           |                    |
| 1                   | WHITE | 3    | YELLOW |      |       |                                                                                                                                           |                    |
| 2                   | BLUE  | 4    | ORANGE |      |       |                                                                                                                                           |                    |
| c) Cabling          |       |      |        |      |       | 4 COND Cabled                                                                                                                             |                    |
| (1) Twists          |       |      |        |      |       | 6.9 Twists/ft. (min.)                                                                                                                     |                    |
| d) Jacket           |       |      |        |      |       | 0.010" Wall, Nom., TPE                                                                                                                    | 0.169              |
| (1) Color(s)        |       |      |        |      |       | WHITE                                                                                                                                     |                    |
| 2) Shield           |       |      |        |      |       | Alum/Mylar Tape, 25% Overlap (min.)                                                                                                       |                    |
| a) Foil Direction   |       |      |        |      |       | Foil Facing Out                                                                                                                           |                    |
| b) Braid            |       |      |        |      |       | Tinned Copper, 85% Coverage (min.)                                                                                                        |                    |
| 3) Jacket           |       |      |        |      |       | 0.031" Wall, Nom., TPU (ZH)                                                                                                               | 0.256 (0.271 max.) |
| a) Color(s)         |       |      |        |      |       | GREEN                                                                                                                                     |                    |
| b) Jacket Separator |       |      |        |      |       | Nonwoven Polyester Tape, 25% Overlap (min.)                                                                                               |                    |
| c) Print            |       |      |        |      |       | ALPHA WIRE-* P/N 74005 4C 22 AWG<br>INDUSTRIAL ETHERNET PROFINET TYPE C<br>SHIELDED CAT5 FT2<br>CE ROHS (SEQ FOOTAGE)<br>* = Factory Code |                    |

## Applicable Specifications

|                      |                                     |  |
|----------------------|-------------------------------------|--|
| 1) CSA International | FT2                                 |  |
| 2) IEC               | EN 60811-2-1 Oil Resistance         |  |
| 3) Other             | ISO/IEC 11801 Category 5            |  |
| 4) CE                | EU Low Voltage Directive 2014/35/EC |  |

# Environmental

|                                       |                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) CE: EU Directive 2011/65/EU(RoHS2) |                                                                                                                                                                                                                                                                                                                                         |
|                                       | This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011and the amending Directive 2015/863/EU of 4 June 2015 . No exemptions are required for RoHS Compliance on this item. Refer to the <a href="#">RoHS Certificate of Compliance</a> for more detail. |
| 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 <a href="#">REACH SVHC Declaration</a> .                                                                                    |
|                                       |                                                                                                                                                                                                                                                                                                                                         |

# Properties

| Physical & Mechanical Properties              |                           |                                                         |                  |                      |
|-----------------------------------------------|---------------------------|---------------------------------------------------------|------------------|----------------------|
| 1) Temperature Range                          |                           | -40 to 80°C                                             |                  |                      |
| 2) Bend Radius                                |                           | 4X Cable Diameter (static), 5X Cable Diameter (dynamic) |                  |                      |
| 3) Pull Tension                               |                           | 28 lbs. max.                                            |                  |                      |
| 4) Torsional Flex                             |                           | 2 million cycles                                        |                  |                      |
|                                               |                           |                                                         |                  |                      |
| Electrical Properties                         |                           | Engineering purposes only                               |                  |                      |
| 1) Max. operating voltage UL                  |                           | 300 V <sub>RMS</sub>                                    |                  |                      |
| 2) Test voltage wire-wire/wire-screen         |                           | 2.5kVdc                                                 |                  |                      |
| 3) Maximum conductor DC-resistance @ 20°C     |                           | 57.1 ω/km                                               |                  |                      |
| 4) Transfer impedance @ 10MHz                 |                           | < 10 mOhm/m                                             |                  |                      |
| 5) Nom. velocity of propagation               |                           | 68%                                                     |                  |                      |
| 6) Delay                                      |                           | < 5.3 ns/m                                              |                  |                      |
| 7) Impedance @ 1 – 100 MHz                    |                           | 100 ± 15 ω                                              |                  |                      |
| 8) ISO/IEC 11801 ed. 2.0, Cat.5 as a minimum. |                           |                                                         |                  |                      |
|                                               |                           |                                                         |                  |                      |
|                                               |                           |                                                         |                  |                      |
| Frequency(MHz)                                | Max. Attenuation(dB/100m) | Min. NEXT(dB)                                           | Min. PS-NEXT(dB) | Min. ELFEXT(dB/100m) |
| 1                                             | 2.1                       | 65                                                      | 62               | 64                   |
| 4                                             | 4                         | 56                                                      | 53               | 52                   |
| 10                                            | 6.3                       | 50                                                      | 47               | 44                   |
| 16                                            | 8                         | 47                                                      | 44               | 40                   |
| 31.25                                         | 11.4                      | 43                                                      | 40               | 34                   |
| 62.5                                          | 16.5                      | 38                                                      | 35               | 28                   |
| 100                                           | 21.3                      | 35                                                      | 32               | 24                   |

# Other

|  |
|--|
|  |
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|                  |                                            |
|------------------|--------------------------------------------|
| <b>Packaging</b> | Flange x Traverse x Barrel (inches)        |
| a) 500 FT        | 12 x 6 x 3.5 Continuous Length             |
|                  | <i>Spool dimensions may vary slightly.</i> |
|                  |                                            |

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

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## EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 74005

74005, RoHS-Compliant Commencing With 9/30/2013 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, 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

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)  
  
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 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:

Dave Watson, Director of Engineering 12/18/2025

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