



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
Tel: 1-800-52 ALPHA (25742), Web: www.alphawire.com

# Customer Specification

## PART NO. 75012

### Construction

|                   |               | Diameters (In)   |               |                         |       |  |  |
|-------------------|---------------|--|---------------|-------------------------|-------|--|--|
| 1) Component 1    |               | 2 X 1 PAIR   |               |                         |       |  |  |
| a) Conductor      |               | 24 (SOLID) AWG BC  |               |                         |       |  |  |
| b) Insulation     |               | 0.014" Wall, Nom. Polypropylene (PP)   |               |                         |       |  |  |
| (1) Color(s)      |               |  |               |                         |       |  |  |
| Pair              | Color         | Pair   | Color         | Pair                    | Color |  |  |
| 1                 | BLU - WHT/BLU | 2  | ORG - WHT/ORG |                         |       |  |  |
| c) Pair           |               | 2/Cond Cabled Together   |               |                         |       |  |  |
| (1) Lay Length:   |               | Various Lay  |               |                         |       |  |  |
| 2) Cable Assembly |               | 2 Components Bunch Cabled  |               |                         |       |  |  |
| a) Twists:        |               | 4.0 Twists/foot  |               |                         |       |  |  |
| b) Core Wrap      |               | Clear Mylar Tape, 25% Overlap, Min.  |               |                         |       |  |  |
| 3) Shield:        |               | A/P/A Tape, 25% Overlap, Min.  |               |                         |       |  |  |
| a) Drain Wire     |               | 24 (SOLID) AWG TC  |               |                         |       |  |  |
| b) Braid          |               | TC,70% Coverage, Min.  |               |                         |       |  |  |
| 4) Jacket         |               | 0.035" Wall, Nom.,TPE  |               | 0.325 Avg. (0.345 Max.) |       |  |  |
| a) Color(s)       |               | BLACK  |               |                         |       |  |  |
| b) Ripcord        |               | Nylon  |               |                         |       |  |  |
| c) Print          |               | ALPHA WIRE-* P/N 75012 2PR 24 AWG<br>XTRAGUARD(R) INDUSTRIAL ETHERNET (UL) C(UL) TYPE<br>CMR 75C FT4 ANSI/TIA-568-C.2 CAT5E VERIFIED<br>ROHS CE (SEQUENTIAL FOOTAGE MARKING)<br>* = Factory Code |               |                         |       |  |  |

### Applicable Specifications

|                      |                                   |       |
|----------------------|-----------------------------------|-------|
| 1) UL                | CMR                               | 105°C |
|                      | FT4                               |       |
| 2) CSA International | C(UL) TYPE CMR                    | 105°C |
|                      | FT4                               |       |
| 3) CE:               | LVD 73/23/EEC Amendment 93/68/EEC |       |

### 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.

## Properties

| Physical & Mechanical Properties |                                 |
|----------------------------------|---------------------------------|
| 1) Temperature Range             | -50 to 105°C                    |
| 2) Bend Radius                   | 8X Cable Diameter               |
| 3) Pull Tension                  | 20.2 Lbs, Maximum               |
| 4) Sunlight Resistance           | Yes                             |
| Electrical Properties            | (For Engineering purposes only) |
| 1) Voltage Rating                | 300 V <sub>RMS</sub>            |
| 2) Characteristic Impedance      | 100 +/- 15                      |
| 3) Mutual Capacitance            | 5.6 nf/100m Max                 |
| 4) Velocity of Propagation       | 70 % Nom.                       |
| 5) Conductor DCR                 | 9.38 /100m @20°C, Max           |
| 6) Skew                          | 45 ns/100m, Max                 |
| 7) Pair to Ground Unbalance      | 330 pf/100m, Max                |
| 8) DC Unbalance of a Pair        | 5%, Max                         |
| 9) Insertion Loss, Max dB/100m   | 2.4 @ 1 MHz                     |
|                                  | 4.9 @ 4 MHz                     |
|                                  | 6.9 @ 8 MHz                     |
|                                  | 7.8 @ 10 MHz                    |
|                                  | 9.9 @ 16 MHz                    |
|                                  | 11.1 @ 20 MHz                   |
|                                  | 12.5 @ 25 MHz                   |
|                                  | 14.1 @ 31.25 MHz                |
|                                  | 20.4 @ 62.5 MHz                 |
|                                  | 26.4 @ 100 MHz                  |

## Other

|   |                                     |
|---|-------------------------------------|
| Packaging                                   | Flange x Traverse x Barrel (inches) |
| a) 1000 FT                                  | 12 x 12 x 3.5 Continuous length     |
| b) 500 FT                                   | 12 x 6 x 3.5 Continuous length      |
| <i>[Spool dimensions may vary slightly]</i> |                                     |

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## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 75012

75012, RoHS-Compliant Commencing With 3/21/2012 Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, 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.*

| 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) | 0.1% by weight (1000 ppm) |
| 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

11/1/2012

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