

**ALPHA WIRE**  
**CUSTOMER PRODUCT SPECIFICATION**

<b>Part Number: 76021</b>	<b>Issue: 2</b>
<b>Page 1 of 2 Pages</b>	<b>Issue Date: 4/18/2012</b>
	<b>Effective Date: 4/24/2012</b>

- A. Construction** Diameters (In)
- 1) Component 1 4 X 1 PAIR
  - a) Conductor 24 (7/32) AWG BC 0.024
  - b) Insulation 0.011" Wall, Nom. Polypropylene (PP) 0.046
  - (1) Color(s)

Pair	Color	Pair	Color	Pair	Color
1	BLU - WHT/BLU	2	ORG - WHT/ORG	3	GRN - WHT/GRN
4	BRN - WHT/BRN				

- c) Pair 2/Cond Cabled Together
- (1) Lay Length: Various Lay
- 2) Cable Assembly 4 Components Bunch Cabled
- a) Twists: 3.0 Twists/foot
- b) Core Wrap: Clear Mylar Tape, 25% Overlap, Min.
- 3) Shield: Alum/Mylar Tape, 25% Overlap, Min.
- a) Foil Direction Foil Facing In
- b) Drain Wire 24 (7/32) AWG TC
- 4) Jacket 0.035 Wall, Nom. TPE 0.310 (0.330 Max.)
- a) Color(s) BLACK
- b) Ripcord Nylon
- c) Print ALPHA WIRE-\* P/N 76021 4PR 24 AWG
- XTRA-GUARD(R) INDUSTRIAL ETHERNET (UL) C(UL) TYPE
- CMR 75C FT4 ANSI/TIA-568-C.2 CAT5E VERIFIED
- ROHS (SEQUENTIAL FOOTAGE MARKING)
- \* = Factory Code

- B. Applicable Specifications**
- 1) UL CMR 75°C
  - FT4
  - 2) CSA International C(UL) TYPE CMR 75°C
  - FT4
  - 3) CE: LVD 73/23/EEC Amendment 93/68/EEC

- C. Environmental Compliance**
- 1) EU Directive 2002/95/EC(RoHS):  
All materials used in the manufacture and packaging of this part must meet the requirement of EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment.

- D. Physical & Mechanical Properties**
- 1) Temperature Range -50 to 105°C
  - 2) Bend Radius 8X Cable Diameter
  - 3) Pull Tension 32.0 Lbs, Maximum
  - 4) Sunlight Resistance Yes

- E. Electrical Properties** (For Engineering purposes only)
- 1) Voltage Rating 300 V<sub>RMS</sub>
  - 2) Characteristic Impedance 100 Ω +/- 15
  - 3) Mutual Capacitance 5.6 nF/100m Max
  - 4) Velocity of Propagation 70 % Nom.
  - 5) Conductor DCR 9.38 Ω/100m Max
  - 6) Skew 45 ns/100m Max
  - 7) Pair to Ground Unbalance 330 pF/100m Max
  - 8) DC Unbalance of a Pair 5% Max

This specification outlines the requirements for the product(s) described herein. Deviations from this specification are not permitted without the written authorization of the Alpha Wire Engineering Department. All finished products will be inspected to the specification and noncompliance or unauthorized deviations will be cause for rejection and return of product.

If vendor certifying agency requirements are in conflict with this document, it is incumbent upon the vendor to notify the Alpha Wire Engineering Department and mark up differences on this document and submit them for review and approval prior to any production. Be advised that product legend information and product legend information and product label information must be in concert; both are the responsibility of the vendor.

It is the responsibility of the vendor to insure that this product meets the requirements of subservient certifying agency documents even though they are not directly noted herein.

All information contained herein is confidential. Its use is restricted to authorized Alpha Wire Company personnel or authorized vendors of the Alpha Wire Company. Under no circumstances shall this document be duplicated in any form or shown to/discussed with unauthorized personnel without the expressed written consent of the Alpha Wire Engineering Department.

**ALPHA WIRE**  
**CUSTOMER PRODUCT SPECIFICATION**

**Part Number: 76021**  
**Page 2 of 2 Pages**

**Issue: 2**  
**Issue Date: 4/18/2012**  
**Effective Date: 4/24/2012**

- |                   |  |
|-------------------|--|
| 9) Insertion Loss | 2.4 (Max dB/100m ) @ 1 MHz<br>4.9 (Max dB/100m ) @ 4 MHz<br>6.9 (Max dB/100m ) @ 8 MHz<br>7.8 (Max dB/100m ) @ 10 MHz<br>9.9 (Max dB/100m ) @ 16 MHz<br>11.1 (Max dB/100m ) @ 20 MHz<br>12.5 (Max dB/100m ) @ 25 MHz<br>14.1 (Max dB/100m ) @ 31.25 MHz<br>20.4 (Max dB/100m ) @ 62.5 MHz<br>26.4 (Max dB/100m ) @ 100 MHz |
|-------------------|--|

**F. Other**

- |              |   |
|--------------|---|
| 1) Packaging | Flange x Traverse x Barrel (inches)         |
| a) 1000 FT   | 18 x 10.5 x 8 Continuous length             |
| b) 500 FT    | 12.5 x 9 x 8 Continuous length              |
|              | <i>[Spool dimensions may vary slightly]</i> |

This specification outlines the requirements for the product(s) described herein. Deviations from this specification are not permitted without the written authorization of the Alpha Wire Engineering Department. All finished products will be inspected to the specification and noncompliance or unauthorized deviations will be cause for rejection and return of product.

If vendor certifying agency requirements are in conflict with this document, **it is incumbent upon the vendor to notify the Alpha Wire Engineering Department** and mark up differences on this document and submit them for **review and approval prior to any production**. Be advised that **product legend information and product legend information and product label information must be in concert**; both are the responsibility of the vendor.

It is the **responsibility of the vendor** to insure that this product meets the requirements of subservient certifying agency documents even though they are not directly noted herein.

All information contained herein is confidential. Its use is restricted to authorized Alpha Wire Company personnel or authorized vendors of the Alpha Wire Company. Under no circumstances shall this document be duplicated in any form or shown to/discussed with unauthorized personnel without the expressed written consent of the Alpha Wire Engineering Department.