

**ALPHA WIRE  
CUSTOMER PRODUCT SPECIFICATION**

**Part Number: 76020**  
**Page 1 of 2 Pages**

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

**A. Construction**

**Diameters (In)**

- |                |                                      |       |
|----------------|--------------------------------------|-------|
| 1) Component 1 | 4 X 1 PAIR                           |       |
| a) Conductor   | 24 (7/32) AWG BC                     | 0.024 |
| b) Insulation  | 0.008" Wall, Nom. Polypropylene (PP) | 0.039 |
| (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:        | 2.4 Twists/foot  |                    |
| b) Core Wrap:     | Clear Mylar Tape, 25% Overlap, Min.  |                    |
| 3) Jacket         | 0.035 Wall, Nom. TPE   | 0.270 (0.290 Max.) |
| a) Color(s)       | BLACK  |                    |
| b) Ripcord        | Nylon  |                    |
| c) Print          | ALPHA WIRE-* P/N 76020 4PR 24 AWG<br>XTRA-GUARD(R) INDUSTRIAL ETHERNET (UL) C(UL) TYPE<br>CMR 75C FT4 ANSI/TIA-568-C.2 CAT5E VERIFIED<br>ROHS (SEQUENTIAL FOOTAGE MARKING)<br>* = 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         | 4X Cable Diameter |
| 3) Pull Tension        | 28.0 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   |
| 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 |

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.  
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7.8 (Max dB/100m ) @ 10 MHz  
9.9 (Max dB/100m ) @ 16 MHz  
11.1 (Max dB/100m ) @ 20 MHz  
12.5 (Max dB/100m ) @ 25 MHz  
14.1 (Max dB/100m ) @ 31.25 MHz  
20.4 (Max dB/100m ) @ 62.5 MHz  
26.4 (Max dB/100m ) @ 100 MHz

**F. Other**

- 1) Packaging
  - a) 1000 FT
  - b) 500 FT

Flange x Traverse x Barrel (inches)  
18 x 10.5 x 8 Continuous length  
12.5 x 9 x 8 Continuous length  
*[Spool dimensions may vary slightly]*

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