ALPHA WIRE
CUSTOMER PRODUCT SPECIFICATION

Part Number: 76002	**Issue:**	**3**
Page 1 of 2 Pages	**Issue Date:**	**4/18/2012**
	Effective Date:	**4/24/2012**

A. Construction — **Diameters (In)**

1) Component 1 — 4 X 1 PAIR
   a) Conductor — 24 (SOLID) AWG BC — 0.023
   b) Insulation — 0.011" Wall, Nom. FEP — 0.045
      (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: — A/P/A Tape, 25% Overlap, Min.
   a) Drain Wire — 26 (SOLID) AWG TC
   b) Braid — TC,70% Coverage, Min.
4) Jacket — 0.035 Wall, Nom. TPE — 0.325 (0.345 Max.)
   a) Color(s) — BLACK
   b) Ripcord — Nylon
   c) Print — ALPHA WIRE-* P/N 76002 4PR 24 AWG
      XTRA-GUARD(R) INDUSTRIAL ETHERNET (UL) C(UL) TYPE
      CMR 105C FT4 ANSI/TIA-568-C.2 CAT5E VERIFIED
      ROHS (SEQUENTIAL FOOTAGE MARKING)
      * = Factory Code

B. Applicable Specifications

1) UL	CMR FT4	105°C	
2) CSA International	C(UL) TYPE CMR FT4	105°C	
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 125°C
2) Bend Radius — 8X Cable Diameter
3) Pull Tension — 34.0 Lbs, Maximum
4) Sunlight Resistance — Yes

E. Electrical Properties (For Engineering purposes only)

1) Voltage Rating — 300 V_{RMS}
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.

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9)	Insertion Loss	2.4 (Max dB/100m) @ 1 MHz 4.9 (Max dB/100m) @ 4 MHz 6.9 (Max dB/100m) @ 8 MHz 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	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
		[Spool dimensions may vary slightly]

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