

**ALPHA WIRE COMPANY  
CUSTOMER PRODUCT SPECIFICATION**

**Part Number: 517891**  
**Page 1 of 2 Pages**

**Issue: 2**  
**Issue Date: 9/17/2008**  
**Effective Date: 9/17/2008**

**A. Construction**

Diameters

- 1) Component 1 4 X 1 COND  
 a) Conductor 14 (41/30) AWG BC  
 b) Insulation 0.016" Wall, Nom. PVC/ 0.005" Wall NYLON 0.116  
 (1) Color(s)

Cond	Color	Cond	Color	Cond	Color
1	RED	3	BLUE		
2	WHITE	4	GREEN		

- 2) Component 2 1 X 1 PAIR  
 a) Conductor 18 (16/30) AWG BC  
 b) Insulation 0.016" Wall, Nom. PVC/ 0.005" Wall NYLON 0.089  
 (1) Color(s)

Pair	Color	Pair	Color	Pair	Color
1	BLACK-ORANGE				

- c) Pair 2/Cond Cabled Together  
 (1) Twists: 4.4 Twists/foot (min)  
 d) Shield: Alum/Mylar Tape, 25% Overlap, Min.  
 (1) Foil Direction Foil Facing Out  
 e) Over Wrap: Clear Mylar Tape, 25% Overlap, Min.  
 3) Cable Assembly 5 Components Cabled  
 a) Twists: 2.4 Twists/foot (min)  
 b) Core Wrap Clear Mylar Tape, 25% Overlap, Min.  
 4) Shield: A/P/A Tape, 25% Overlap, Min.  
 a) Drain Wire 16 (26/30) AWG TC  
 b) Braid TC,70% Coverage, Min.  
 5) Jacket 0.065" Wall, Nom.,PVC, Oil Resistant 0.496 (0.520 Max.)  
 a) Color(s) BLACK  
 b) Print ALPHA WIRE-\* P/N 517891 4C 14 AWG 1PR 18 AWG  
 (UL) TYPE TC-ER 90C 600V  
 — LL49185 CSA AWM IA/B IIA/B 90C  
 600V FT4 CE ROHS LOT # DATE CODE  
 \* = Factory Code

*[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]*

**B. Industry Approvals**

- 1) UL TC 90°C / 600V  
 2) CSA International AWM-I-A/B-II-A/B 90°C / 600V  
 FT4  
 3) 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.

- 4) California Proposition 65: The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.  
 5) CE: LVD 73/23/EEC Amendment 93/68/EEC

**C. Physical & Mechanical Properties**

- 1) Temperature Range -25 to 90°C  
 2) Bend Radius 10X Cable Diameter  
 3) Pull Tension 181 Lbs, Maximum

**D. Electrical Properties** (For Engineering purposes only)

- 1) Voltage Rating 600 V<sub>RMS</sub>  
 2) Component 1

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Page 2 of 2 Pages

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- a) Capacitance 53 pf/ft @1 kHz, Nominal Conductor to Conductor
- b) Ground Capacitance 95 pf/ft @1 kHz, Nominal
- c) Inductance 0.17  $\mu$ H/ft, Nominal
- d) Conductor DCR 2.6  $\Omega$ /1000ft @20°C, Nominal
- e) OA Shield DCR 1.74  $\Omega$ /1000ft @20°C, Nominal
- 3) Component 2
  - a) Mutual Capacitance 46 pf/ft @1 kHz, Nominal
  - b) Ground Capacitance 83 pf/ft @1 kHz, Nominal
  - c) Characteristic Impedance 47  $\Omega$
  - d) Inductance 0.19  $\mu$ H/ft, Nominal
  - e) Conductor DCR 6.9  $\Omega$ /1000ft @20°C, Nominal
  - f) Component Shield DCR 336  $\Omega$ /1000ft @20°C, Nominal
  - g) OA Shield DCR 1.76  $\Omega$ /1000ft @20°C, Nominal
- E. Other
  - 1) Packaging
    - a) Bulk(Made-to-order)

**This Design is custom, Made-To-Order & once accepted, the order is NON-CANCELLABLE & NON-RETURNABLE.**

*	Accepted By: <i>[Signature]</i>	Date: <i>2/22/10</i>
	Company: <i>Nord Gear Corp</i>	Title: <i>Purchasing Manager</i>

\* Material to be the same as last PO. 80100595.00.  
Albany Door # 001554  
CCD# 4138. -

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