

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

**Part Number: 74004**  
**Page 1 of 2 Pages**

**Issue: 3**  
**Issue Date: 6/21/2018**  
**Effective Date: 6/21/2018**

**A. Construction**

- |                |   | <u>Diameters (In)</u> |
|----------------|---|-----------------------|
| 1) Component 1 | 4 X 1 PAIR                                |                       |
| a) Conductor   | 26 (7/34) AWG Bare Copper                 | 0.019                 |
| b) Insulation  | 0.012" Wall, Nom. Polyethylene, Foam-Skin | 0.043                 |
| (1) Color(s)   |   |                       |

Pair	Color	Pair	Color	Pair	Color
1	WHITE - BLUE	3	WHITE - GREEN		
2	WHITE - ORANGE	4	WHITE - BROWN		

- |                       |   |                    |
|-----------------------|---|--------------------|
| c) Pair               | 2/Cond Cabled Together  |                    |
| (1) Twists:           | Staggered Lays  |                    |
| Individually Applied: |   |                    |
| d) Shield:            | Alum/Mylar Tape, 20% Overlap, Min.  |                    |
| (1) Foil Direction    | Foil Facing Out   |                    |
| 2) Cable Assembly     | 4 Components Cabled   |                    |
| 3) Shield             | Tinned Copper BRAID Shield, 65% Coverage, Min.  |                    |
| 4) Jacket             | 0.028" Wall, Nom., Polyurethane, Zero Halogen (ZH)  | 0.268 (0.276 Max.) |
| a) Color(s)           | BLACK   |                    |
| b) Print              | ALPHA WIRE-H P/N 74004 4PR 26 AWG<br>INDUSTRIAL ETHERNET SHIELDED ANSI/TIA-568-C.2<br>CAT7 VERIFIED FT2 CE ROHS (SEQ FOOTAGE) |                    |

**B. Applicable Specifications**

- |                      |  |                            |
|----------------------|--|----------------------------|
| 1) UL                | AWM/STYLE 21292  | 80°C / 30 V <sub>RMS</sub> |
| 2) CSA International | FT2  |                            |
| 3) IEC               | IEC 60811-2-1 Oil Resistance<br>IEC 60754-1 Halogen Free |                            |
| 4) Other             | ISO/IEC 11801 Category 7<br>EN 50173-1                   |                            |
| 5) CE:               | EU Low Voltage Directive 2014/35/EC                      |                            |

**C. Environmental Compliance**

- 1) CE:
 

EU Directive 2011/65/EU(RoHS2):  
This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for [RoHS C of C](#).
- 2) REACH Regulation (EC 1907/2006):
 

This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see [Alpha's REACH SVHC Declaration](#).

**D. Physical & Mechanical Properties**

- |                      |  |
|----------------------|--|
| 1) Temperature Range | -40 to 80°C (static), -40 to 80°C (dynamic)            |
| 2) Bend Radius       | 5X Cable Diameter(static), 10X Cable Diameter(dynamic) |
| 3) Pull Tension      | 18 Lbs, Maximum  |

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

Max. operating voltage UL	300 V rms
Dielectric strength cond. – cond. (2 sec.)	2.5kVdc
D.C. resistance conductor	<145 Ω/km
Resistance unbalance	< 2%
D.C. insulation resistance	> 5000 MΩ.km
Mutual capacitance	< 56 nF/km
Capacitance unbalance	< 1600 pF/km
Velocity of propagation	≥ 70%
Skew @ 100 MHz	≤ 40 ns/100m
Propagation delay	≤ 534 + 36/√f ns/100m
Mean characteristic impedance (Zcm) @ 100 MHz	100 ± 5 Ω
Input impedance 1-600MHz	100 ± 15 Ω
Transfer Impedance (Z <sub>T</sub> ) @ 10 MHz	< 5 mOhm/m

Frequency (MHz)	Max. Insertion Loss (dB/100m)	Min. NEXT (dB)	Min. PS-NEXT (dB)	Min. ELFEXT (dB/100m)	Min. PS-ELFEXT (dB/100m)	Min. Return Loss (dB)
1	2.7	80	77			
4	5.5	80	77	58	55	23
10	8.5	80	77	50	47	25
16	10.8	80	77	46	43	25
20	12.1	80	77	44	41	25
31.25	15.2	80	77	40	37	23.6
62.5	27.8	75.1	72.1	34	31	21.5
100	27.8	72.4	69.4	30	27	20.1
200	40.1	67.9	64.9	24	21	18
300	50	65.3	62.3	20	17	17.3
600	73.3	60.8	57.8	14	11	17.3

**F. Other**

- 1) Packaging  
a) 500 FT
- Flange (mm)  
260 Continuous length  
*[Spool dimensions may vary slightly]*

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