

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

Part Number: 6436  
Page 1 of 2 Pages

Issue: 4  
Issue Date: 5/26/2005  
Effective Date: 8/1/2005

**A. Construction**

Diameters

- |                |                          |       |
|----------------|--------------------------|-------|
| 1) Component 1 | 4 X 1 PAIR               |       |
| a) Conductor   | 22 (7/.0096) AWG TC      |       |
| b) Insulation  | 0.013" Wall, Nom. PVC    | 0.055 |
| (1) Color Code | Alpha Wire Color Code BR |       |
- 
- | Pair | Color         | Pair | Color         | Pair | Color |
|------|---------------|------|---------------|------|-------|
| 1    | BLACK#1-RED#1 | 3    | BLACK#3-RED#3 |      |       |
| 2    | BLACK#2-RED#2 | 4    | BLACK#4-RED#4 |      |       |
- |                       |   |                    |
|-----------------------|---|--------------------|
| c) Pair               | 2/Cond Cabled Together  |                    |
| (1) Twists:           | 8.0 Twists/foot (min)   |                    |
| Individually Applied: |   |                    |
| d) Shield:            | Foil Free Alum/Mylar Tape, 25% Overlap, Min.  |                    |
| (1) Foil Direction    | Foil Facing In  |                    |
| (2) Drain Wire        | 24 (7/32) AWG TC  |                    |
| 2) Cable Assembly     | 4 Components Cabled   |                    |
| a) Twists:            | 3.4 Twists/foot (min)   |                    |
| b) Core Wrap          | Clear Mylar Tape, 25% Overlap, Min.   |                    |
| 3) Jacket             | 0.043" Wall, Nom., PVC  | 0.334 (0.349 Max.) |
| a) Color(s)           | GRAY  |                    |
| b) Print              | ALPHA WIRE-* P/N 6436 4PR 22 AWG<br>SHIELDED 105C (UL) TYPE PLTC SUN. RES. OR<br>TYPE CM --- LLXXXXXX CSA TYPE CMG FT4 ROHS |                    |

\* = Factory Code

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

**B. Industry Approvals**

- |                                   |  |       |
|-----------------------------------|--|-------|
| 1) UL                             | CM   | 105°C |
|                                   | PLTC   | 105°C |
|                                   | SUN RES  |       |
| 2) CSA International              | CMG  | 60°C  |
|                                   | 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. Consult Alpha Wire's web site for compliance Date of Manufacture. |       |
| 4) California Proposition 65:     | The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.   |       |

**C. Physical & Mechanical Properties**

- |                      |                    |
|----------------------|--------------------|
| 1) Temperature Range | -20 to 105°C       |
| 2) Bend Radius       | 10X Cable Diameter |
| 3) Pull Tension      | 55 Lbs, Maximum    |

**D. Electrical Properties**

(For Engineering purposes only)

- |                             |                            |
|-----------------------------|----------------------------|
| 1) Voltage Rating           | 300 V <sub>RMS</sub>       |
| 2) Mutual Capacitance       | 47 pf/ft @1 kHz, Nominal   |
| 3) Ground Capacitance       | 85 pf/ft @1 kHz, Nominal   |
| 4) Characteristic Impedance | 48 Ω                       |
| 5) Inductance               | 0.19 μH/ft, Nominal        |
| 6) Conductor DCR            | 18 Ω/1000ft @20°C, Nominal |

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7) Component Shield DCR 19.8  $\Omega$ /1000ft @20°C, Nominal

**E. Other**

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

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