

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

Part Number: 6427  
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Issue: 4  
Issue Date: 5/26/2005  
Effective Date: 8/1/2005

**A. Construction**

Diameters

- |                |   |       |
|----------------|---|-------|
| 1) Component 1 | 2 X 1 PAIR  |       |
| a) Conductor   | 18 (19/30) AWG TC   |       |
| b) Insulation  | 0.016" Wall, Nom. PVC   | 0.082 |
| (1) Print      | ALPHA NUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED 2 INCH SPACING(CTR. TO CTR.) |       |
| (2) Color Code | Alpha Wire Color Code BR  |       |

Pair	Color	Pair	Color	Pair	Color
1	BLACK#1-RED#1	2	BLACK#2-RED#2		

- |                   |   |                    |
|-------------------|---|--------------------|
| c) Pair           | 2/Cond Cabled Together  |                    |
| (1) Twists:       | 4.8 Twists/foot (approx.)   |                    |
| 2) Cable Assembly | 2 Components Cabled   |                    |
| a) Twists:        | 3.0 Twists/foot (min)   |                    |
| b) Core Wrap      | Clear Mylar Tape, 25% Overlap, Min.   |                    |
| 3) Shield:        | Alum/Mylar Tape, 25% Overlap, Min.  |                    |
| a) Foil Direction | Foil Facing In  |                    |
| b) Drain Wire     | 20 (7/.0121) AWG TC   |                    |
| 4) Jacket         | 0.043" Wall, Nom.,PVC   | 0.362 (0.376 Max.) |
| a) Color(s)       | GRAY  |                    |
| b) Print          | ALPHA WIRE-* P/N 6427 2PR 18 AWG SHIELDED 105C (UL) TYPE PLTC SUN. RES. OR 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      | 68 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 | 45 Ω                        |
| 5) Inductance               | 0.17 μH/ft, Nominal         |
| 6) Conductor DCR            | 6.1 Ω/1000ft @20°C, Nominal |

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7) OA Shield DCR                      7.9  $\Omega$ /1000ft @20°C, Nominal

**E. Other**

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

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