

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

Part Number: 6420  
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Issue: 4  
Issue Date: 5/26/2005  
Effective Date: 8/1/2005

**A. Construction**

Diameters

- 1) Component 1                      6 X 1 PAIR
  - a) Conductor                      22 (7/.0096) AWG TC
  - b) Insulation                      0.013" Wall, Nom. PVC                      0.055
    - (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	3	BLACK#3-RED#3	5	BLACK#5-RED#5
2	BLACK#2-RED#2	4	BLACK#4-RED#4	6	BLACK#6-RED#6

- c) Pair                                      2/Cond Cabled Together
  - (1) Twists:                              8.0 Twists/foot (approx.)
- 2) Cable Assembly                      6 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                              24 (7/32) AWG TC
- 4) Jacket                                      0.043" Wall, Nom.,PVC                      0.365 (0.383 Max.)
  - a) Color(s)                              GRAY
  - b) Print                                      ALPHA WIRE-\* P/N 6420 6PR 22 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                              64 Lbs, Maximum

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

- 1) Voltage Rating                              300 V<sub>RMS</sub>
- 2) Mutual Capacitance                      32 pf/ft @1 kHz, Nominal
- 3) Ground Capacitance                      58 pf/ft @1 kHz, Nominal
- 4) Characteristic Impedance              71 Ω
- 5) Inductance                                      0.19 μH/ft, Nominal

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|------------------|--------------------------------------|
| 6) Conductor DCR | 18 $\Omega$ /1000ft @20°C, Nominal   |
| 7) OA Shield DCR | 13.4 $\Omega$ /1000ft @20°C, Nominal |

**E. Other**

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

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