ALPHA WIRE COMPANY
CUSTOMER PRODUCT SPECIFICATION

Part Number: 6431 | **Issue:** 4
Page 1 of 2 Pages | **Issue Date:** 5/26/2005
Effective Date: 8/1/2005

A. Construction

Diameters

1) Component 1 — 9 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	4	BLACK#4-RED#4	7	BLACK#7-RED#7
2	BLACK#2-RED#2	5	BLACK#5-RED#5	8	BLACK#8-RED#8
3	BLACK#3-RED#3	6	BLACK#6-RED#6	9	BLACK#9-RED#9

   c) Pair — 2/Cond Cabled Together
      (1) Twists: — 4.8 Twists/foot (approx.)
2) Cable Assembly — 9 Components Cabled
   a) Twists: — 1.7 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 — 0.063" Wall, Nom.,PVC — 0.622 (0.646 Max.)
   a) Color(s) — GRAY
   b) Print — ALPHA WIRE-* P/N 6431 9PR 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 — 277 Lbs, Maximum

D. Electrical Properties

(For Engineering purposes only)

1) Voltage Rating — 300 V_{RMS}
2) Mutual Capacitance — 36 pf/ft @1 kHz, Nominal
3) Ground Capacitance — 65 pf/ft @1 kHz, Nominal
4) Characteristic Impedance — 62 Ω
5) Inductance — 0.17 µH/ft, Nominal

6) Conductor DCR 6.1 Ω/1000ft @20°C, Nominal
7) OA Shield DCR 6.7 Ω/1000ft @20°C, Nominal

E. Other

1) Packaging
   a) 1000 FT
   b) 500 FT