

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

Part Number: 6448  
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Issue: 4  
Issue Date: 5/26/2005  
Effective Date: 8/1/2005

**A. Construction**

Diameters

- |                |                          |       |
|----------------|--------------------------|-------|
| 1) Component 1 | 15 X 1 PAIR              |       |
| a) Conductor   | 18 (19/30) AWG TC        |       |
| b) Insulation  | 0.016" Wall, Nom. PVC    | 0.082 |
| (1) Color Code | Alpha Wire Color Code BR |       |

| Pair | Color         | Pair | Color           | Pair | Color           |
|------|---------------|------|-----------------|------|-----------------|
| 1    | BLACK#1-RED#1 | 6    | BLACK#6-RED#6   | 11   | BLACK#11-RED#11 |
| 2    | BLACK#2-RED#2 | 7    | BLACK#7-RED#7   | 12   | BLACK#12-RED#12 |
| 3    | BLACK#3-RED#3 | 8    | BLACK#8-RED#8   | 13   | BLACK#13-RED#13 |
| 4    | BLACK#4-RED#4 | 9    | BLACK#9-RED#9   | 14   | BLACK#14-RED#14 |
| 5    | BLACK#5-RED#5 | 10   | BLACK#10-RED#10 | 15   | BLACK#15-RED#15 |

- |                       |  |                    |
|-----------------------|--|--------------------|
| c) Pair               | 2/Cond Cabled Together   |                    |
| (1) Twists:           | 4.8 Twists/foot (min)  |                    |
| Individually Applied: |  |                    |
| d) Shield:            | Foil Free Alum/Mylar Tape, 25% Overlap, Min.   |                    |
| (1) Foil Direction    | Foil Facing In   |                    |
| (2) Drain Wire        | 20 (7.0121) AWG TC   |                    |
| 2) Cable Assembly     | 15 Components Cabled   |                    |
| a) Twists:            | 1.1 Twists/foot (min)  |                    |
| b) Core Wrap          | Clear Mylar Tape, 25% Overlap, Min.  |                    |
| 3) Jacket             | 0.063" Wall, Nom., PVC   | 0.829 (0.859 Max.) |
| a) Color(s)           | GRAY   |                    |
| b) Print              | ALPHA WIRE-* P/N 6448 15PR 18 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      | 568 Lbs, Maximum   |

**D. Electrical Properties**

(For Engineering purposes only)

- |                             |                           |
|-----------------------------|---------------------------|
| 1) Voltage Rating           | 300 V <sub>RMS</sub>      |
| 2) Mutual Capacitance       | 59 pf/ft @1 kHz, Nominal  |
| 3) Ground Capacitance       | 106 pf/ft @1 kHz, Nominal |
| 4) Characteristic Impedance | 38 Ω                      |
| 5) Inductance               | 0.17 μH/ft, Nominal       |

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- 6) Conductor DCR                      6.1  $\Omega$ /1000ft @20°C, Nominal
- 7) Component Shield DCR        8.9  $\Omega$ /1000ft @20°C, Nominal

**E. Other**

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

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