

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

**Part Number: 45462**  
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**Issue: 11**  
**Issue Date: 6/19/2008**  
**Effective Date: 7/1/2008**

**A. Construction**

**Diameters (In)**

- |                |                                 |       |
|----------------|---------------------------------|-------|
| 1) Component 1 | 2 X 1 COND                      |       |
| a) Conductor   | 20 (7/28) AWG TC                |       |
| b) Insulation  | 0.016" Wall, Nom. TPE           | 0.070 |
| (1) Color Code | Alpha Wire Company Color Code D |       |

Cond	Color	Cond	Color	Cond	Color
1	BLACK	2	RED		

- |                   |   |                    |
|-------------------|---|--------------------|
| 2) Cable Assembly | 2 Components Cabled   |                    |
| a) Twists:        | 8.0 Twists/foot (min)   |                    |
| b) Core Wrap      | Nonwoven Polyester Tape, 25% Overlap, Min.                        |                    |
| 3) Shield:        | Alum/Mylar Tape, 25% Overlap, Min.                                |                    |
| a) Foil Direction | Foil Facing In  |                    |
| b) Drain Wire     | 20 (7/28) AWG TC  |                    |
| 4) Jacket         | 0.045" Wall, Nom., TPE  | 0.238 (0.248 Max.) |
| a) Color(s)       | Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White |                    |
| b) Ripcord        | 1 End 810 Denier Nylon  |                    |
| c) Print          | ALPHA WIRE-* P/N 45462 2C 20 AWG                                  |                    |
- XTRAGUARD 4 XTREME PERFORMANCE FOR XTREME ENVIRONMENTS (UL) TYPE PLTC 105C OR AWM 20237  
125C 300 VOLTS -- LLXXXXX CSA AWM IA/B IIA/B  
125C 300 VOLTS FT1 P-07-KA070017-MSHA  
CE <SEQ FOOTAGE>  
\* = Factory Code

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

**B. Industry Approvals**

- |                                   |   |                  |
|-----------------------------------|---|------------------|
| 1) UL                             | AWM/STYLE 20237                             | 125°C / 300 VRMS |
|                                   | PLTC  | 105°C            |
| 2) CSA International              | AWM I/II A/B                                | 125°C / 300 VRMS |
|                                   | FT1   |                  |
| 3) Other                          | PENNSYLVANIA BUREAU OF MINE SAFETY APPROVED |                  |
| 4) EU Directive 2002/95/EC(RoHS): |   |                  |

All materials used in the manufacture of this part are compliant with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment under the now annulled Exemption 9A which allowed Deca-BDE. Alpha Wire is working to completely remove PBDE's from all products. Consult Alpha Wire's web site for compliance Date of Manufacture.

- |                               |  |
|-------------------------------|--|
| 5) California Proposition 65: | The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65. |
| 6) CE:                        | LVD 73/23/EEC Amendment 93/68/EEC  |

**C. Physical & Mechanical Properties**

- |                        |                    |
|------------------------|--------------------|
| 1) Temperature Range   | -50 to 125°C       |
| 2) Bend Radius         | 10X Cable Diameter |
| 3) Pull Tension        | 26 Lbs, Maximum    |
| 4) Sunlight Resistance | Yes                |

**D. Electrical Properties**

(For Engineering purposes only)

- |                             |   |
|-----------------------------|---|
| 1) Voltage Rating           | 300 VRMS  |
| 2) Capacitance              | 23.8 pf/ft @1 kHz, Nominal Conductor to Conductor |
| 3) Ground Capacitance       | 43 pf/ft @1 kHz, Nominal                          |
| 4) Characteristic Impedance | 66 Ω  |
| 5) Inductance               | 0.19 μH/ft, Nominal                               |

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- 6) Conductor DCR 10.2  $\Omega$ /1000ft @20°C, Nominal
- 7) OA Shield DCR 8.2  $\Omega$ /1000ft @20°C, Nominal

**E. Other**

- 1) Packaging
  - a) 1000 FT
  - b) 500 FT
  - c) Bulk(Made-to-order)

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