

ALPHA WIRE COMPANY

CUSTOMER PRODUCT SPECIFICATION

Part Number: 6451
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Issue: 1
Issue Date: 5/20/2008
Effective Date: 5/20/2008

A. Construction

Diameters

- 1) Component 1 1 X 1 PAIR
 - a) Conductor 15 (19/.0135) AWG TC
 - b) Insulation 0.021" Wall, Nom. PVC
- (1) Color(s)

0.109

Pair	Color	Pair	Color	Pair	Color
1	BLACK-RED				

Individually Applied:

- c) Shield: Alum/Mylar Tape, 25% Overlap, Min.
 - (1) Foil Direction Foil Facing Out
- 2) Component 2 1 X 1 PAIR
 - a) Conductor 18 (19/30) AWG TC
 - b) Insulation 0.053" Wall, Nom. Foam HDPE
- (1) Color(s)

0.150

Pair	Color	Pair	Color	Pair	Color
1	BLUE-WHITE				

Individually Applied:

- c) Shield: Alum/Mylar Tape, 25% Overlap, Min.
 - (1) Foil Direction Foil Facing Out
- 3) Cable Assembly 2 Components Cabled
 - a) Twists: 2.4 Twists/foot (min)
- 4) Shield TC BRAID Shield, 65% Coverage, Min.
 - a) Drain Wire 18 (19/30) AWG TC
- 5) Jacket 0.060" Wall, Nom., PVC
 - a) Color(s) SLATE
 - b) Print ALPHA WIRE P/N 6451
 DEVICENET™ THICK --- 1PR16 1PR18 SHIELDED (UL)
 EXXXXX CMG 75C OR PLTC-ER SUN RES OR AWM
 20201 600V C(UL) CMG OR AWM I/II A 80C 300V
 --- FT4 OIL RES (1 METER MARKING, ---METER---

0.480+/- 0.015

B. Industry Approvals

- 1) UL

PLTC	75°C
SUN RES	75°C
CMG	75°C
AWM/STYLE 20201	60°C / 600V
- 2) CSA International

C(UL) TYPE CMG	75°C
AWM I/II A	80°C / 300V
FT4	
- 3) Other ODVA CLASS 2 THICK
- 4) 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.

C. Physical & Mechanical Properties

- 1) Temperature Range -20 to 75°C(static), 0 to 80°C (dynamic)
- 2) Bend Radius 10X Cable Diameter
- 3) Pull Tension 104 Lbs, Maximum

D. Electrical Properties

- 1) Voltage Rating 300 V_{RMS}
- 2) Component 1

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- a) Inductance 0.174 μ H/ft, Nominal
 - b) Conductor DCR 3.6 Ω /1000ft @20°C, Nominal
 - c) Current 8 amps per conductor @30°C, Maximum
 - 3) Component 2
 - a) Characteristic Impedance 120 Ω +/- 12
 - b) Inductance 0.258 μ H/ft, Nominal
 - c) Mutual Capacitance 12 pf/ft @1 kHz, Nominal
 - d) Velocity of Propagation 75 %
 - e) Conductor DCR 6.9 Ω /1000ft @20°C, Nominal
 - g) Current 5 amps per conductor @30°C, Maximum
 - h) Attenuation, Max dB/100ft
 - 0.13 @ 125 kHz
 - 0.25 @ 500 kHz
 - 0.36 @ 1 MHz
 - 4) OA Shield DCR 1.8 Ω /1000ft @20°C, Nominal
- E. Other**
- 1) Packaging
 - a) 1000 FT
 - b) 500 FT
 - c) 100 FT

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