



# Customer Specification

## PART NO. 6452

### Construction

				Diameters (In)	
1) Component 1		1 X 1 PAIR			
a) Conductor		22 (19/34) AWG TC		0.030	
b) Insulation		0.021" Wall, Nom. PVC		0.072	
(1) Color(s)					
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		24 (19/36) AWG TC		0.025	
b) Insulation		0.026" Wall, Nom. Foam HDPE		0.077	
(1) Color(s)					
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:		4.0 Twists/foot (min)			
4) Shield		TC BRAID Shield, 65% Coverage, Min.			
a) Drain Wire		22 (19/34) AWG TC			
5) Jacket		0.033" Wall, Nom., PVC		0.280 +/- 0.015	
a) Color(s)		SLATE			
b) Jacket Separator		Clear Mylar Tape, 25% Overlap, Min.			
c) Print		ALPHA WIRE-* P/N 6452 DEVICENET THIN --- 1PR22 1PR24 SHIELDED (UL) EXXXXX CL2 OR CMG 75C OR AWM 600V OR C(UL) CMG OR AWM I/II A 80C 300V --- FT4 SUN RES OIL RES (1 METER MARKING,---METER---) * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

### Applicable Specifications

1) UL	CL2	75°C
	SUN RES	75°C
	CMG	75°C
	AWM/STYLE 20201	60°C / 600 V <sub>RMS</sub>
	OIL RES I	
2) CSA International	C(UL) TYPE CMG	75°C
	AWM I/II A	80°C / 300 V <sub>RMS</sub>
	FT4	
3) Other	ODVA CLASS 2 THIN	

## Environmental

1) 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.

## Properties

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	29 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Component 1	
a) Inductance	0.221 µH/ft, Nominal
b) Conductor DCR	17.5 O/1000ft @20°C, Nominal
c) Current	2.4 amps per conductor @30°C, Maximum
3) Component 2	
a) Characteristic Impedance	120 O +/- 12
b) Inductance	0.251 µH/ft, Nominal
c) Mutual Capacitance	12 pf/ft @1 kHz, Nominal
d) Velocity of Propagation	75 %
e) Conductor DCR	28 O/1000ft @20°C, Nominal
f) Current	1.7 amps per conductor @30°C, Maximum
g) Attenuation, Max dB/100ft	0.29 @ 125 kHz
	0.5 @ 500 kHz
	0.7 @ 1 MHz
4) OA Shield DCR	3.2 O/1000ft @20°C, Nominal

## Other

1) Packaging	
a) 1000 FT	
b) 500 FT	
c) 100 FT	

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## RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:6452

6452 , RoHS-Compliant Commencing With7/1/2008Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.***

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.01% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm)
Polybrominated Biphenyls (PBB)	0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) Including Deca-BDE	0.1% by weight (1000 ppm)

*The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of its release. The information provided is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.*

Authorized Signatory for the Alpha Wire Company:

A handwritten signature in black ink, appearing to read 'Dave Watson'.

Dave Watson, Director of Engineering &QA

9/30/2011