



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
Tel: 1-800-52 ALPHA (25742), Web: www.alphawire.com

# Customer Specification

## PART NO. M52902

### Construction

				Diameters (In)	
1) Component 1		12 X 1 PAIR			
a) Conductor		24 (7/32) AWG TC		0.024	
b) Insulation		0.006" Wall, Nom. FEP		0.036	
(1) Color Code		Alpha Wire Color Code K			
Pair	Color	Pair	Color	Pair	Color
1	BLACK-RED	5	BLACK-YELLOW	9	RED-GREEN
2	BLACK-WHITE	6	BLACK-BROWN	10	RED-BLUE
3	BLACK-GREEN	7	BLACK-ORANGE	11	RED-YELLOW
4	BLACK-BLUE	8	RED-WHITE	12	RED-BROWN
c) Pair		2/Cond Cabled Together			
(1) Twists:		12.0 Twists/foot (min)			
2) Component 2		1 X 1 COND			
a) Conductor		24 (7/32) AWG TC		0.024	
b) Insulation		0.006" Wall, Nom. FEP		0.036	
(1) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	RED				
3) Cable Assembly		13 Components Cabled			
a) Twists:		3.4 Twists/foot (min)			
b) Core Wrap		Clear Mylar Tape, 25% Overlap, Min.			
4) Shield:		Alum/Mylar Tape, 25% Overlap, Min.			
a) Foil Direction		Foil Facing In			
b) Drain Wire		24 (7/32) AWG TC			
5) Jacket		0.015" Wall, Nom.,PVC, Plenum Rated		0.282 (0.300 Max.)	
a) Color(s)		SLATE			
b) Print		ALPHA WIRE-* P/N M52902 12PR 24 AWG 1C 24 AWG SHIELDED 75C CMP(UL) C(UL) ROHS * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

### Applicable Specifications

1) UL	CMP	75°C
2) CSA International	CMP	75°C
	FT6	

## 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.
2) California Proposition 65:	The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 75°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	91 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Component 1	
a) Mutual Capacitance	15.8 pf/ft @1 kHz, Nominal
b) Ground Capacitance	28 pf/ft @1 kHz, Nominal
c) Characteristic Impedance	92 Ω
d) Inductance	0.16 μH/ft, Nominal
e) Conductor DCR	26 Ω/1000ft @20°C, Nominal
f) OA Shield DCR	13.4 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Ground Capacitance	74 pf/ft @1 kHz, Nominal
b) Inductance	0.04 μH/ft, Nominal
c) Conductor DCR	26 Ω/1000ft @20°C, Nominal
d) OA Shield DCR	13.4 Ω/1000ft @20°C, Nominal

## Other

<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) 1000 FT	12 x 10 x 5 Max. 3 separate pieces; Min length/piece 250 FT.
b) 500 FT	12 x 4.5 x 3.5 Continuous length
c) 100 FT	6.5 x 4 x 2.5 Continuous length
d) Bulk(Made-to-order)	
	[Spool dimensions may vary slightly]

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## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M52902

M52902 , RoHS-Compliant Commencing With 7/1/2005 Production

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive, 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 this Directive for the specific definitions and extents of this Directive. **No Exemptions are required for RoHS Compliance on this item.** It should be noted that this product does not fall within the scope of Directive 2011/65/EU, but this Certificate is offered for cases where this product will be used within EEE that does fit within the Directive's scope. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2006.

### 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

5/14/2013