

## Customer Specification

### PART NO. 6456

#### Construction

				<b>Diameters (In)</b>	
1) Component 1	3 X 1 PAIR				
a) Conductor	22 (7/30) AWG Tinned Copper				0.030
b) Insulation	0.0225" Wall, Nom. Foam HDPE				0.075
(1) Color(s)					
Pair	Color	Pair	Color	Pair	Color
1	WHITE/BLUE-BLUE/WHITE	2	WHITE/ORANGE-ORANGE/WHITE	3	WHITE/GREEN-GREEN/WHITE
c) Pair	2/Cond Cabled Together				
(1) Twists:	4.8 Twists/foot (min)				
2) Cable Assembly	3 Components Cabled				
a) Twists:	3.2 Twists/foot (min)				
3) Shield:	Alum/Mylar Tape, 25% Overlap, Min.				
a) Foil Direction	Foil Facing Out				
b) Drain Wire	22 (7/30) AWG Tinned Copper				
c) Braid	Tinned Copper, 65% Coverage, Min.				
4) Jacket	0.053" Wall, Nom., PVC				0.414
a) Color(s)	BLACK				
b) Print	ALPHA WIRE P/N 6456 3PR 22 AWG EXXXXX SHIELDED (UL) CM OR PLTC SUN RES OR C(UL) CM --- FT1 CE ROHS * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>				

#### Applicable Specifications

1) UL	PLTC	60°C
	CM	60°C
	SUN RES	
2) CSA International	CM	60°C
	FT1	
3) CE:	EU Low Voltage Directive 2006/95/EC	

## Environmental

1) CE: EU Directive 2011/65/EU(RoHS2):	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for <a href="#">RoHS C of C</a> .
2) REACH Regulation (EC 1907/2006):	This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see <a href="#">Alpha's REACH SVHC Declaration</a> .

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 60°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	44 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Characteristic Impedance	120 Ω +/- 12
3) Mutual Capacitance	11 pf/ft @1 kHz, Nominal
4) Ground Capacitance	20.9 pf/ft @1 kHz, Nominal
5) Velocity of Propagation	78 %
6) Conductor DCR	15.3 Ω/1000ft @20°C, Nominal
7) OA Shield DCR	2 Ω/1000ft @20°C, Nominal
8) Current	2.7 amps per conductor @30°C, Maximum
9) Attenuation, Max dB/100ft	0.5 @ 1 MHz

## Other

<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) 5000 FT	48 x 26 x 18 Continuous length
b) 1000 FT	24 x 14 x 12 Continuous length
c) 500 FT	16 x 11 x 8 Continuous length
d) 100 FT	12 x 10 x 5 Continuous length
	<i>[Spool dimensions may vary slightly]</i>
<b>Notes:</b>	
a) EIA Industrial RS485 cable.	
b) 5000 ft. put-up available by special order only, minimums may apply.	

[www.alphawire.com](http://www.alphawire.com)

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## EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 6456

6456, RoHS-Compliant Commencing With 7/1/2008 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This document also certifies that the product complies with Directive 2015/863/EU which amends Directive 2011/65/EU by adding lead to the list of restricted substances. The list of restricted substances now includes 10 items (commonly known as RoHS 3). The table below provides the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item**. This product is also in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product

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)
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% by weight (1000 ppm)
Butyl benzyl phthalate (BBP)	0.1% by weight (1000 ppm)
Dibutyl phthalate (DBP)	0.1% by weight (1000 ppm)
Diisobutyl phthalate (DIBP)	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 issue. It is 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 to provide guidance for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation to their specific circumstances.

Authorized Signatory for the Alpha Wire:

A handwritten signature in black ink that appears to read "Dave Watson".

Dave Watson, Director of Engineering 4/11/2024

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