

Customer Specification

PART NO. M4158

Construction

						Diameter ("in")	
1) Component 1						2 x 1 COND	
a) Conductor						16 (SOLID) AWG BC	0.051
b) Insulation						0.055" Wall, Nom. Polyethylene, Foam	0.161
(1) Color(s)							
Cond	Color	Cond	Color	Cond	Color		
1	BLUE	2	CLEAR				
2) Cable Assembly						2 Components Cabled	
a) Twists						3.0 Twists/foot (min.)	
3) Shield						A/P/A Tape, 25% Overlap (min.)	
a) Braid						TC, 90% Coverage (min.)	
4) Jacket						0.042" Wall, Nom., PVC	0.440 (0.454 max.)
a) Color(s)						BLACK	
b) Print						ALPHA WIRE-* P/N M4158 EXXXXX 2C16 SHIELDED CMX (UL) OR AWM 2448 LOW VOLTAGE COMPUTER CABLE OR C(UL) CMX CE ROHS * = Factory Code <i>Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.</i>	

Applicable Specifications

1) UL	CMX	60°C
	AWM/STYLE 2448	60°C / 30 V _{RMS}
2) CSA International	C(UL) TYPE CMX	60°C
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. Refer to the RoHS Certificate of Compliance for more detail.
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 Alpha's REACH SVHC Declaration .
3) California Proposition 65	Outer surface materials used in manufacturing this part meet the requirements of California Proposition 65.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 60°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	53 lbs. max.
Electrical Properties	
	<i>Engineering purposes only</i>
1) Voltage Rating	300 V _{RMS}
2) Characteristic Impedance	124 ω +/- 5
3) Inductance	0.24 μH/ft., Nominal
4) Mutual Capacitance	10.9 pf/ft. @1 kHz, Nominal
5) Ground Capacitance	19.3 pf/ft. @1 kHz, Nominal
6) Velocity of Propagation	78%
7) Conductor DCR	4.2 ω/1000ft. @20°C, Nominal
8) OA Shield DCR	1.3 ω/1000ft. @20°C, Nominal
9) Attenuation (nom. dB/100ft.)	0.2 @1 MHz
	0.7 @10 MHz
	1.8 @50 MHz
	2.9 @100 MHz
	4.1 @200 MHz
	6.2 @400 MHz

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	24 x 14 x 12 Continuous Length
b) 500 FT	18 x 12 x 8 Continuous Length
c) 100 FT	12 x 10 x 5 Continuous Length
d) Bulk (<i>made-to-order</i>)	
	<i>Spool dimensions may vary slightly.</i>

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SpecPDFFooterConfidential



EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M4158

M4158, RoHS-Compliant Commencing With 01/01/2006 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Union (2011/65/EU), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The list of restricted substances to 10 items (commonly known as RoHS 3) The reader is referred to these Directives for the specific definitions and **Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control"

Substance

Lead
Mercury
Cadmium
Hexavalent Chromium
Polybrominated Biphenyls (PBB)
Polybrominated Diphenyl Ethers (PBDE) ,
Including Deca-BDE
Bis(2-ethylhexyl) phthalate (DEHP)
Butyl benzyl phthalate (BBP)
Dibutyl phthalate (DBP)
Diisobutyl phthalate (DIBP)

Maximum Control Value

0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.01% by weight (100 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)

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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 issuance. This document is intended 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. The intent of this document is not to provide regulatory information for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulatory requirements. Authorized Signatory for the Alpha Wire:

A handwritten signature in blue ink, appearing to read 'QBW', with a long horizontal line extending to the right.

Dave Watson, Director of Engineering & QA 14/09/2025

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