

Customer Specification

PART NO. M1768

Construction

						Diameters (In)
1) Component 1		8 X 1 COND				
a) Conductor		16 (19/29) AWG Tinned Copper				0.056
b) Insulation		0.017" Wall, Nom. PVC/ 0.005" Wall NYLON				0.098
(1) Color Code		Alpha Wire Color Code F				
Cond	Color	Cond	Color	Cond	Color	
1	BLACK	4	GREEN	7	WHITE/BLACK	
2	WHITE	5	ORANGE	8	RED/BLACK	
3	RED	6	BLUE			
2) Cable Assembly		8 Components Cabled				
a) Twists:		2.5 Twists/foot (min)				
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER				
c) Core Wrap		Clear Mylar Tape, 25% Overlap, Min.				
3) Shield		Tinned Copper BRAID Shield,90% Coverage, Min.				
4) Jacket		0.040" Wall, Nom.,PVC				0.431 (0.453 Max.)
a) Color(s)		SLATE				
b) Print		ALPHA WIRE-* P/N M1768 8C 16 AWG CE ROHS * = Factory Code				

Applicable Specifications

1) UL	VW-1	
2) Military		
a) Component 1	MIL-W-16878/Type C/N	105°C / 1000 V _{RMS}
3) CE:	EU Low Voltage Directive 2014/35/EU	

Environmental

1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3):	
	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011 and the amending Directive 2015/863/EU of 4 June 2015 . No Exemptions are required for RoHS Compliance on this item.
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.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-55 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	162 Lbs, Maximum
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	1000 V _{RMS}
2) Capacitance	47 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	85 pF/ft @1 kHz, Nominal
4) Inductance	0.18 μH/ft, Nominal
5) Conductor DCR	4.7 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	2.8 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	24 x 14 x 12 Continuous length
b) 500 FT	18 x 9 x 8 Continuous length
c) 100 FT	12 x 5.94 x 5 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M1768

M1768, RoHS-Compliant Commencing With 7/1/2005 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 of the European Parliament, better known as the RoHS Directive (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 certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** 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 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

Substance

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)

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 5/7/2024

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