2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-800-52 ALPHA
Web: www.alphawire.com

Customer Specification

PART NO. SPM1809

Construction

	Diameters (In)	
1) Component 1	9 X 1 COND	
a) Conductor	18 (19/30) AWG Bare Copper	0.050
b) Insulation	0.016" Wall, Nom. PVC/ 0.005" Wall NYLON	0.092
(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	9	GREEN/BLACK

2) Cable Assembly	9 Components Cabled	
a) Twists:	2.7 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) Jacket	0.050" Wall, Nom.,PVC	0.438+/- 0.025
a) Color(s)	GREEN	
b) Print	ALPHA WIRE-* P/N SPM1809 9C 18 AWG (0.963mm2) SERIES SPM (UL) WTTC 90C DRY/WET 1000V OR (UL) TC-ER 90C DRY/WET 600V DIR BUR SUN RES OR MTW 18 AWG FLEXING --- C(RU) AWM I/II A/B 105C 600V FT1 CE ROHS (DATE CODE) (SEQ FOOTAGE) * = Factory Code	

Applicable Specifications

1) UL		
a) Component 1	Unlisted Conductor	90°C Dry / 90°C Wet / 600 V_{RMS}
b) Overall	UL 1277 TC	90°C Dry / 90°C Wet / 600 V_{RMS}
	UL 2277 WTTC	90°C Dry / 90°C Wet / 1000 V_{RMS}
	SUN RES	
	UL 1685 Vertical Tray Flame Test	
	UL 1063 MTW	90°C Dry / 60°C Wet / 600 V_{RMS}
	DIRECT BURIAL	
	EXPOSED RUN	
	OIL RES I	
2) CSA International	C(RU) AWM I/II A/B FT1	105°C / 600 V_{RMS}
3) Other		
a) Component 1	ASTM-B174 Class K	
4) 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	-40 to 90°C(static), -30 to 90°C (dynamic)
2) Bend Radius	10X Cable Diameter
3) Pull Tension	134 Lbs, Maximum
4) Sunlight Resistance	Yes
5) Direct Burial	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	600/1000 V_{RMS}
2) Capacitance	27 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Inductance	0.19 µH/ft, Nominal
4) Conductor DCR	5.6 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	

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Lead	□□□□□□□□□0.1% (1000 ppm)
Mercury	□□□□□□□□□0.1% (1000 ppm)
Cadmium	□□□□□□□□□0.01% (100 ppm)
Hexavalent Chromium	□□□□□□□□□0.1% (1000 ppm)
Polybrominated Biphenyls (PBB)	□□□□□□□□□0.1% (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE), Including Deca-BDE	□□□□□□□□□0.1% (1000 ppm)
Bis(2-ethylhexyl) phthalate (DEHP)	□□□□□□□□□0.1% (1000 ppm)
Butyl benzyl phthalate (BBP)	□□□□□□□□□0.1% (1000 ppm)
Dibutyl phthalate (DBP)	□□□□□□□□□0.1% (1000 ppm)
Diisobutyl phthalate (DIBP)	□□□□□□□□□0.1% (1000 ppm)

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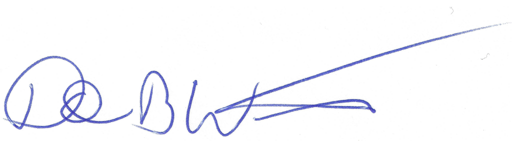

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