



Customer Specification

PART NO. 5180/20C

Construction

		Diameters (In)			
1) Component 1		20 X 1 COND			
a) Conductor		16 (19/.0117) AWG TC		0.059	
b) Insulation		0.016" Wall, Nom. PVC		0.091	
(1) Color Code		Alpha Wire Color Code D			
Cond	Color	Cond	Color	Cond	Color
1	BLACK	8	YELLOW	15	RED/BLACK
2	RED	9	VIOLET	16	WHITE/BLACK
3	WHITE	10	SLATE	17	WHITE/RED
4	GREEN	11	PINK	18	WHITE/GREEN
5	ORANGE	12	TAN	19	WHITE/YELLOW
6	BLUE	13	RED/GREEN	20	WHITE/BLUE
7	BROWN	14	RED/YELLOW		
2) Cable Assembly		20 Components Cabled			
a) Twists:		2.2 Twists/foot (min)			
b) Core Wrap		Nonwoven Polyester Tape, 25% Overlap, Min.			
3) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Drain Wire		16 (19/.0117) AWG TC			
b) Braid		TC,70% Coverage, Min.			
4) Jacket		0.053" Wall, Nom.,PVC		0.617 (0.640 Max.)	
a) Color(s)		Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White			
b) Ripcord		1 End 810 Denier Nylon			
c) Print		ALPHA WIRE-* P/N 5180/20C 20C 16 AWG XTRAGUARD(R) 1 SHIELDED (UL) TYPE CM 105C OR AWM 2464 VW-1 --- LLXXXXXX CSA 105C TYPE CMG FT4 CE ROHS (SEQ FOOTAGE) * = Factory Code [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

Applicable Specifications

1) UL		
a) Component 1	AWM/STYLE 1569	105°C / 300 V _{RMS}
b) Overall	AWM/STYLE 2464	80°C / 300 V _{RMS}
	CM	105°C
	VW-1	
2) CSA International	CMG	105°C
	FT4	
3) CE:	LVD 73/23/EEC Amendment 93/68/EEC	

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) REACH Regulation (EC 1907/2006):	
	This product does not contain any of the substances listed on the 13 January 2010 European Union's REACH Substance of Very High Concern (SVHC) candidate list in excess of 0.1% mass of the item.
3) 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	-30 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	438 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V _{RMS}
2) Capacitance	57 pf/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	103 pf/ft @1 kHz, Nominal
4) Inductance	0.17 µH/ft, Nominal
5) Conductor DCR	4.4 /1000ft @20°C, Nominal
6) OA Shield DCR	1.47 /1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	30 x 14 x 12 Continuous length
b) 500 FT	24 x 14 x 12 Continuous length
c) 100 FT	16 x 11 x 8 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:5180/20C

5180/20C , RoHS-Compliant Commencing With8/1/2005Production

*This document certifies that the Alpha part numbers cited above are manufactured in accordance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, better known as the RoHS Directives, 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 these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.***

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.1% 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

1/21/2011