



Customer Specification

PART NO. 6431

Construction

		Diameters (In)			
1) Component 1		9 X 1 PAIR			
a) Conductor		18 (19/30) AWG TC			
b) Insulation		0.016" Wall, Nom. PVC		0.082	
(1) Print		ALPHA NUMERIC NUMBERS - 1-ONE ALTERNATING AND INVERTED			
(2) Color Code		Alpha Wire Company Color Code BR			
Pair	Color	Pair	Color	Pair	Color
1	BLACK#1-RED#1	4	BLACK#4-RED#4	7	BLACK#7-RED#7
2	BLACK#2-RED#2	5	BLACK#5-RED#5	8	BLACK#8-RED#8
3	BLACK#3-RED#3	6	BLACK#6-RED#6	9	BLACK#9-RED#9
c) Pair		2/Cond Cabled Together			
(1) Twists:		4.8 Twists/foot (approx.)			
2) Cable Assembly		9 Components Cabled			
a) Twists:		1.7 Twists/foot (min)			
b) Core Wrap		Clear Mylar Tape, 25% Overlap, Min.			
3) Shield:		Alum/Mylar Tape, 25% Overlap, Min.			
a) Foil Direction		Foil Facing In			
b) Drain Wire		20 (7/.0121) AWG TC			
4) Jacket		0.063" Wall, Nom.,PVC		0.622 (0.646 Max.)	
a) Color(s)		SLATE			
b) Print		ALPHA WIRE-* P/N 6431 9PR 18 AWG SHIELDED 105C (UL) TYPE PLTC SUN. RES. OR TYPE CM --- LLXXXXXX CSA TYPE CMG FT4 ROHS * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>			

Applicable Specifications

1) UL	CM	105°C
	PLTC	105°C
	SUN RES	
2) CSA International	CMG	60°C
	FT4	

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) 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	-20 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	277 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V _{RMS}
2) Mutual Capacitance	36 pf/ft @ 1 kHz, Nominal
3) Ground Capacitance	65 pf/ft @ 1 kHz, Nominal
4) Characteristic Impedance	62 Ω
5) Inductance	0.17 μH/ft, Nominal
6) Conductor DCR	6.1 Ω/1000ft @ 20°C, Nominal
7) OA Shield DCR	6.7 Ω/1000ft @ 20°C, Nominal

Other

1) Packaging	
a) 1000 FT	
b) 500 FT	

www.alphawire.com

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RoHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number:6431

6431 , 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)

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Authorized Signatory for the Alpha Wire Company:

Dave Watson, Director of Engineering &QA

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