

# Customer Specification

## PART NO. M4271

### Construction

				Diameters (In)	
1) Component 1		1 X 2 COND			
a) Conductor		20 (7/28) AWG ( 1/C BC - 1/C TC)		0.038	
b) Insulation		0.0225" Wall, Nom. Polyethylene(PE)		0.083	
(1) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	NATURAL	2	NATURAL		
c) Cabling		2 COND Cabled			
(1) Twists:		5.3 Twists/foot (min)			
d) Jacket		0.032" Wall, Nom.,Polyethylene (PE)		0.236+/- 0.012	
(1) Color(s)		NATURAL			
(2) Jacket Separator		Tissue Tape, 25% Overlap, Min.			
2) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Braid		TC,85% Coverage, Min.			
3) Jacket		0.030" Wall, Nom.,PVC		0.330+/- 0.020	
a) Color(s)		BLACK			
b) Print		ALPHA WIRE-* P/N M4271 EXXXXX 75C 1PR20 SHIELDED (UL) CL2 OR CMG OR C(UL) CMG CE ROHS * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>			

### Applicable Specifications

1) UL	CMG	75°C
	CL2	75°C

2) CSA International	C(UL) TYPE CMG	75°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. Consult Alpha Wire's web site for RoHS C of C.
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:	
	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 75°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	27 Lbs, Maximum
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Characteristic Impedance	100 Ω +/- 5
3) Inductance	0.155 μH/ft, Nominal
4) Mutual Capacitance	14.5 pf/ft @1 kHz, Nominal
5) Ground Capacitance	23 pf/ft @1 kHz, Nominal
6) Velocity of Propagation	66 %
7) Conductor DCR	BC- 9.6, TC- 10.2 Ω/1000ft @20°C, Nominal
8) OA Shield DCR	1.74 Ω/1000ft @20°C, Nominal
9) Attenuation, Nom dB/100ft	0.3 @ 1 MHz
	1.2 @ 10 MHz
	2.8 @ 50 MHz
	4.1 @ 100 MHz

	6.4 @ 200 MHz
	10.2 @ 400 MHz

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	18 x 12 x 8 Continuous length
b) 500 FT	12 x 12 x 3.5 Continuous length
c) 100 FT	12 x 4.5 x 3.5 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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