



**Advanex Americas, Inc.**

5780 Cerritos Ave  
 Cypress  
 California  
 90630  
 USA  
 714.995.4519  
 714.995.7294  
 insidesales@advanexusa.com

Fax:  
 Email:

Input Data		
<b>Spring Details</b>		
Spring Type	Round Wire Compression	
Design Standard	EN 13906-1: 2002	
Tolerance Standard	EN 15800:2008	
<b>Material Information</b>		
Material - ASTM A228 (Music Wire)		
Young's Modulus	29877775	lbf/in <sup>2</sup>
Rigidity Modulus	11820576	lbf/in <sup>2</sup>
Density	0.284	lb/in <sup>3</sup>
Unprestressed Range	0-45	%
Prestressed Range	45-56	%
<b>Design Information</b>		
End Type	Closed & Ground	
Dead Coils	2.00	
Tip Thickness	50.00	%
End Fixation		
Wire Diameter	0.6000	inch
Outside Diameter	3.000	inch
Total Coils	4.31	
Spring Rate	6000.00	lbf/in
Free Length	4.000	inch

Calculated Data		
Solid Length	2.585	inch
Solid Length (Max)	2.600	inch
Solid Load	8488.66	lbf
Solid Stress	240180	lbf/in <sup>2</sup>
OD Expansion at solid	0.03403	inch
Stress Factor	1.38	
Active Coils	2.31	
Spring Index	4.00	
Helix Angle	9.14	Deg
Buckling Possible	4.000	inch
Buckling Definite	4.000	inch
Spring Pitch	1.213	inch
Inside Diameter	1.800	inch
Mean Coil Dia.	2.400	inch
Outside Diameter	3.000	inch
Wire Length	32.758	inch
Weight	2.627	lb
Natural Frequency	38648	RPM

Operating Data		
	Operating Positions	
	1	2
Length (inch)	3.833	3.800
Load (lbf)	1000.00	1200.00
Deflection (inch)	0.1667	0.2000
Stress (lbf/in <sup>2</sup> )	28294	33953
Stress % Solid	12	14
O.D. Expansion (mm)	0.004009	0.004811



**Advanex Americas, Inc.**

5780 Cerritos Ave  
Cypress  
California  
90630  
USA

714.995.4519

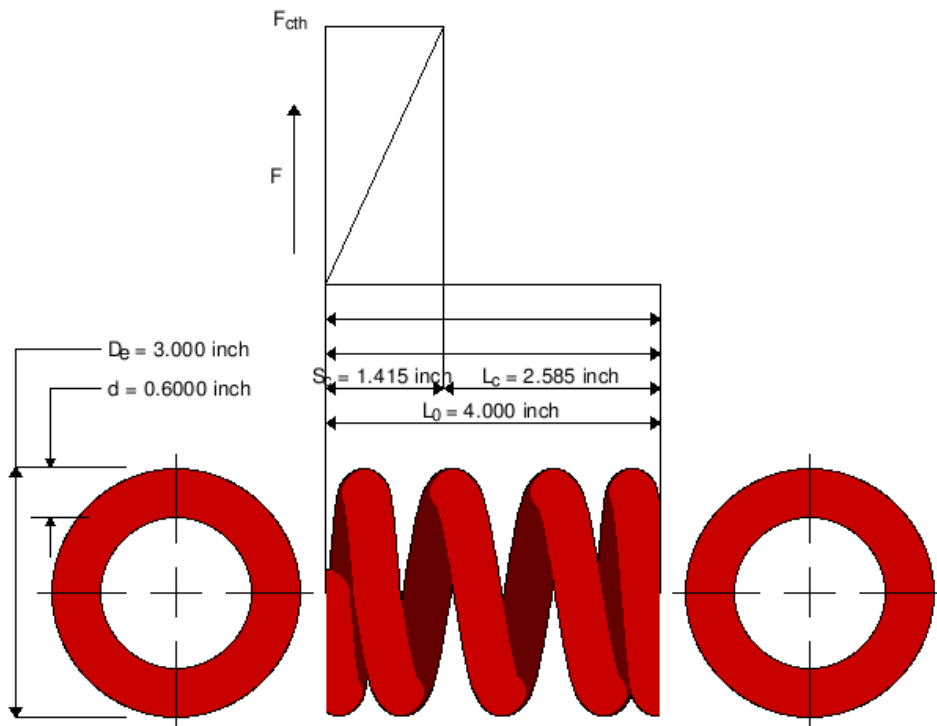
714.995.7294

insidesales@advanexusa.com

Fax:  
Email:

Spring Tolerances					
EN 15800:2008					
	Value		Grade 1	Grade 2	Grade 3
Free Length	4.000	±	0.02862	0.04543	0.07269
Outside Diameter	3.000	±	0.01575	0.03150	0.05906
Spring Rate	6000.00	±			
Squareness			0.1260	0.2000	0.3200
Parallelism			0.04500	0.09000	0.1800
Working Load 1	1000.00	±	181.182	287.591	460.145
Working Load 2	1200.00	±	183.072	290.591	464.945

## Spring Drawing





**Advanex Americas, Inc.**  
5780 Cerritos Ave  
Cypress  
California  
90630  
USA  
714.995.4519  
714.995.7294  
insidesales@advanexusa.com

Load / Length Drawing

