



**Advanex Americas, Inc.**  
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 California  
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Fax:  
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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	206000	MPa	
Rigidity Modulus	81500	MPa	
Density	0.00000785	kg/mm <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	0.800	mm	
Outside Diameter	8.10	mm	
Total Coils	11.00		
Spring Rate	1.19	N/mm	
Free Length	57.15	mm	

Calculated Data		
Solid Length	8.80	mm
Solid Length (Max)	8.96	mm
Solid Load	57.63	N
Solid Stress	2092.2	MPa
OD Expansion at solid	0.466	mm
Stress Factor	1.15	
Active Coils	9.00	
Spring Index	9.13	
Helix Angle	15.06	Deg
Buckling Possible	57.15	mm
Buckling Definite	57.15	mm
Spring Pitch	6.17	mm
Inside Diameter	6.50	mm
Mean Coil Dia.	7.30	mm
Outside Diameter	8.10	mm
Wire Length	259.64	mm
Weight	0.00102	kg
Natural Frequency	36291	RPM

Operating Data		
	Operating Positions	
	1	2
Length (mm)		
Load (N)		
Deflection (mm)		
Stress (MPa)	0	0
Stress % Solid	0	0
O.D. Expansion (mm)		



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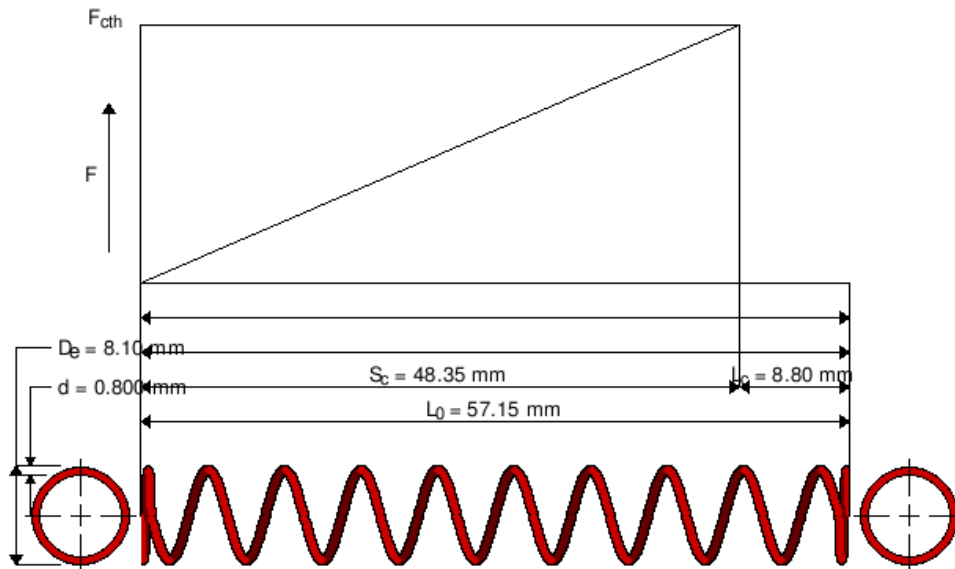
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Spring Tolerances					
EN 15800:2008					
	Value		Grade 1	Grade 2	Grade 3
Free Length	57.15	±	0.629	0.999	1.60
Outside Diameter	8.10	±	0.150	0.300	0.600
Spring Rate	1.19	±			
Squareness			1.80	2.86	4.57
Parallelism			0.122	0.243	0.486
Working Load 1		±	0.750	1.19	1.90
Working Load 2		±	0.750	1.19	1.90

## Spring Drawing





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Load / Length Drawing

