

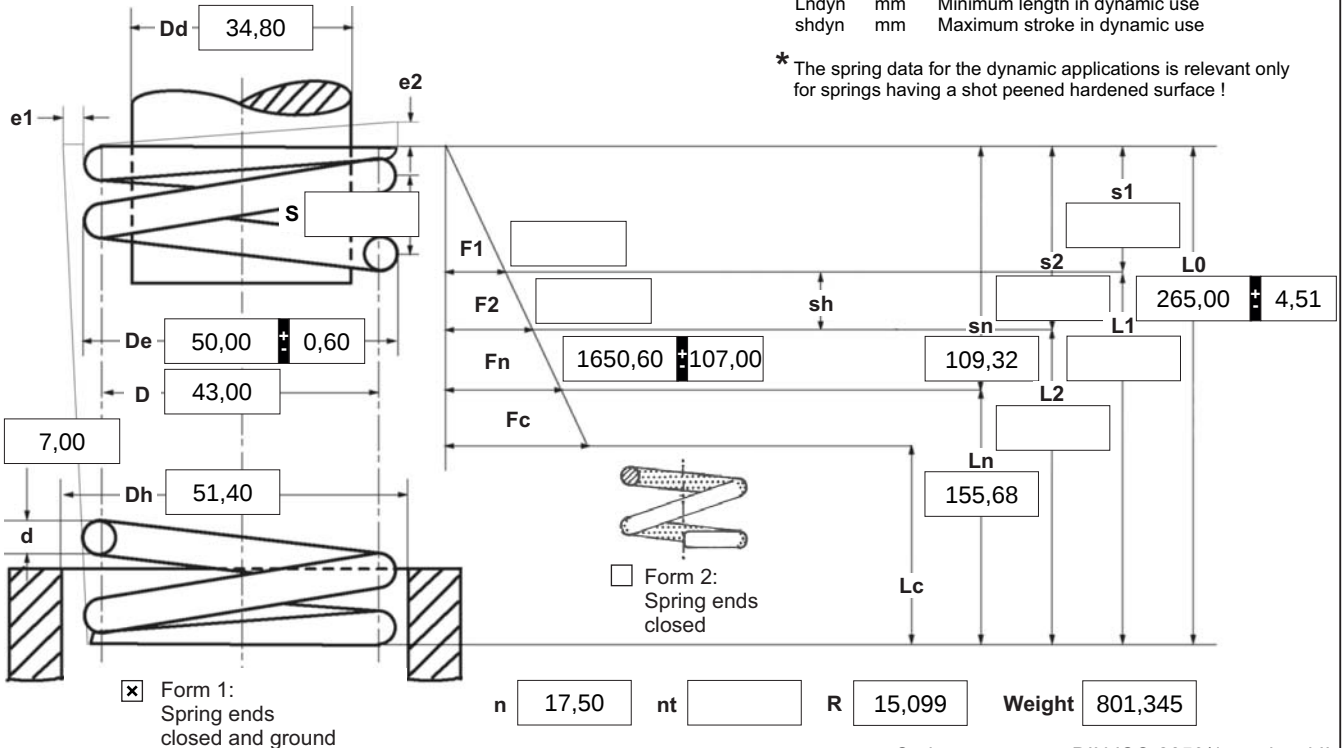
05.2025

d	mm	Wire diameter
D	mm	Mean coil diameter
De	mm	Diameter of mandrel
Dd	mm	Outer coil diameter
Dh	mm	Diameter of bush
e1	mm	Perm.dev. perpendicular line
e2	mm	Perm.dev. parallel line
F1	N	Prestressed spring force
F2	N	Loaded spring force

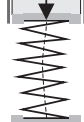
F _n	N	Maximum force in static use
F _c	N	Theoretic maximum force at L _c
L ₀	mm	Length of unstressed spring
L ₁	mm	Prestressed spring length
L ₂	mm	Loaded spring length
L _k	mm	Buckling length
L _n	mm	Minimum length in static use
L _c	mm	Block length
n	pc.	Active coils

nt	pc.	Total coils	05.
R	N/mm	Spring rate	
S	mm	Pitch (distance between coils)	
s1	mm	Prestressed spring deflection	
s2	mm	Loaded spring deflection	
sh	mm	Maximum stroke in static use	
sn	mm	Maximum spring deflection in static use	
Weight	g	Weight of one spring in grammes	
Fndyn	N	Maximum force in dynamic force	
Fndtol	N	(+/-) tolerance of maximum dynamic force	
Lndyn	mm	Minimum length in dynamic use	
shdyn	mm	Maximum stroke in dynamic use	

* The spring data for the dynamic applications is relevant only for springs having a shot peened hardened surface !



Spring test acc. to DIN ISO 2859/1 test level II

1 Coiling direction ☐ left ☒ right	7 Guidance and seat to DIN EN 13906-1 ☐ mandrel ☐ bush Buckling length L_k at v=0,5 / Bild 5 165,56 mm 	12 Tolerances to DIN EN 15800 <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Grade</th> <th>De,Di,D</th> <th>L0</th> <th>F1,F2</th> <th>e1,e2</th> <th>Wire diameter d to DIN 2076</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td rowspan="3">☒</td> </tr> <tr> <td>2</td> <td>☒</td> <td>☒</td> <td>☒</td> <td>☒</td> </tr> <tr> <td>3</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>	Grade	De,Di,D	L0	F1,F2	e1,e2	Wire diameter d to DIN 2076	1	☐	☐	☐	☐	☒	2	☒	☒	☒	☒	3	☐	☐	☐	☐		
Grade	De,Di,D	L0	F1,F2	e1,e2	Wire diameter d to DIN 2076																					
1	☐	☐	☐	☐	☒																					
2	☒	☒	☒	☒																						
3	☐	☐	☐	☐																						
2 Dynamic load * <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Fndyn</td> <td style="border: 1px solid black; padding: 2px;">1505,85</td> </tr> <tr> <td>Fndtol</td> <td style="border: 1px solid black; padding: 2px;">105,00</td> </tr> <tr> <td>Lndyn</td> <td style="border: 1px solid black; padding: 2px;">165,27</td> </tr> <tr> <td>shdyn</td> <td style="border: 1px solid black; padding: 2px;">30,15</td> </tr> </table>	Fndyn	1505,85	Fndtol	105,00	Lndyn	165,27	shdyn	30,15	8 Material 1.4310	13 Prouction compensation through <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">A spring resistance and associated length of tensed spring</td> <td style="width: 20%;">L0 ☐</td> </tr> <tr> <td>A spring resistance, associated length of tensed spring and L0</td> <td>n, d ☒ n, De, Di ☐</td> </tr> <tr> <td>Two spring resistances and associated lengths of tensed spring</td> <td>L0, n, d ☐ L0,n,De,Di ☐</td> </tr> </table>	A spring resistance and associated length of tensed spring	L0 ☐	A spring resistance, associated length of tensed spring and L0	n, d ☒ n, De, Di ☐	Two spring resistances and associated lengths of tensed spring	L0, n, d ☐ L0,n,De,Di ☐										
Fndyn	1505,85																									
Fndtol	105,00																									
Lndyn	165,27																									
shdyn	30,15																									
A spring resistance and associated length of tensed spring	L0 ☐																									
A spring resistance, associated length of tensed spring and L0	n, d ☒ n, De, Di ☐																									
Two spring resistances and associated lengths of tensed spring	L0, n, d ☐ L0,n,De,Di ☐																									
3 Excursion sh mm	9 Wire or rod surface ☒ drawn ☐ rolled ☐ metal-cut	14 Setting springs All springs which show setting tendency because of their size are pre-set within the production process.																								
4 Stress cyc. end. N 	10 Springs deburred ☐ inside ☐ outside	Prices <table style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Quantità progressive</th> <th style="text-align: left;">Prezzo singolo [EUR]</th> </tr> </thead> <tbody> <tr><td>1</td><td>17,2900 €</td></tr> <tr><td>2</td><td>13,7700 €</td></tr> <tr><td>3</td><td>10,0900 €</td></tr> <tr><td>7</td><td>8,3300 €</td></tr> <tr><td>17</td><td>7,1500 €</td></tr> <tr><td>37</td><td>6,1700 €</td></tr> <tr><td>75</td><td>6,0800 €</td></tr> <tr><td>125</td><td>6,0800 €</td></tr> <tr><td>175</td><td>6,0800 €</td></tr> <tr><td>250</td><td>6,0800 €</td></tr> <tr><td>350</td><td>6,0800 €</td></tr> </tbody> </table>	Quantità progressive	Prezzo singolo [EUR]	1	17,2900 €	2	13,7700 €	3	10,0900 €	7	8,3300 €	17	7,1500 €	37	6,1700 €	75	6,0800 €	125	6,0800 €	175	6,0800 €	250	6,0800 €	350	6,0800 €
Quantità progressive	Prezzo singolo [EUR]																									
1	17,2900 €																									
2	13,7700 €																									
3	10,0900 €																									
7	8,3300 €																									
17	7,1500 €																									
37	6,1700 €																									
75	6,0800 €																									
125	6,0800 €																									
175	6,0800 €																									
250	6,0800 €																									
350	6,0800 €																									
5 Stress cycle frequ. n /	11 Surface treatment ☐ shot peened 																									
6 Application temp. °C	Remarks Paese d'origine: DE Numero della tariffa doganale: 73202081																									