

07.2025

Symbol	Unit	Description	Value
F_n	N	Maximum spring force	4,27
L_h	mm	Loop height	5,330
L_k	mm	Length of unstressed spring body	27,34
L_0	mm	Unstressed spring length	38,00
s_2	mm	Loaded spring deflection	0,21
s_n	mm	Maximum spring deflection	236,69
sh	mm	Excursion	0,90
R	N/mm	Spring rate	7,50

The technical drawing shows a spring with a hook and a coiled body. Key dimensions are labeled: D_h (hook diameter, 8,60), L_h (loop height, 5,330), L_k (length of unstressed spring body, 27,34), L_0 (unstressed spring length, 38,00), L_1 , L_2 , and L_n (total length at different stages). The coiled body has a diameter D and a wire diameter d (0,45). The hook has a diameter D_h and a length L_h . The spring is shown in a state of being compressed, with a force F_n applied at the end, resulting in a deflection s_n (236,69). A force-displacement diagram is shown on the right, with force F on the vertical axis and deflection s on the horizontal axis. The diagram shows a linear relationship between force and deflection, starting from the origin and passing through points (F_0, s_0) , (F_1, s_1) , (F_2, s_2) , and (F_n, s_n) . The spring rate R is indicated as the slope of this line.

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

1 Coiling direction ☐ left ☒ right	4 Stress cyc. end. N	10 Tolerances to DIN 2097 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Grade</th> <th>De,Di,D</th> <th>L0</th> <th>F0-Fn</th> <th>Loops</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" style="text-align: center; vertical-align: middle;"> d to DIN 2076 </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	F0-Fn	Loops	Wire diameter d to DIN 2076	1	☐	☐	☐	☐	 d to DIN 2076	2	☒	☒	☒	☒	3	☐	☐	☐	☐				
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2 Loop shape and loop position Loop shape 1/1 German loop Loops offset to one another by 270,0 + 69,0 degrees (in the dir. of the right helix)	5 Stress cycle frequ. n /	11 Production compensation through <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 80%;">A spring resistance, associated length of tensed spring and L0</td> <td style="width: 20%;">F0, D ☒</td> </tr> <tr> <td>A spring resistance, associated length of tensed spring and F0</td> <td>L0, n, d ☐ L0, D ☐</td> </tr> <tr> <td>Two spring resistances and associated length of tensed spring</td> <td>L0, n, d ☐ F0,D ☐</td> </tr> </tbody> </table>	A spring resistance, associated length of tensed spring and L0	F0, D ☒	A spring resistance, associated length of tensed spring and F0	L0, n, d ☐ L0, D ☐	Two spring resistances and associated length of tensed spring	L0, n, d ☐ F0,D ☐																				
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6 Application temp. °C	7 Material 1.4310																											
3 Excursion sh mm	8 Wire or rod surface ☒ drawn ☐ rolled ☐ metal-cut																											
9 Surface treatment 		Prices <table style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Cantidad progresiva</th> <th style="text-align: left;">Precio unidad [EUR]</th> </tr> </thead> <tbody> <tr><td>1</td><td>6,4000 €</td></tr> <tr><td>2</td><td>4,0300 €</td></tr> <tr><td>3</td><td>2,8200 €</td></tr> <tr><td>7</td><td>2,3500 €</td></tr> <tr><td>17</td><td>1,1600 €</td></tr> <tr><td>37</td><td>0,8500 €</td></tr> <tr><td>75</td><td>0,6900 €</td></tr> <tr><td>125</td><td>0,6356 €</td></tr> <tr><td>175</td><td>0,6220 €</td></tr> <tr><td>250</td><td>0,6172 €</td></tr> <tr><td>350</td><td>0,5899 €</td></tr> <tr><td>450</td><td>0,5461 €</td></tr> </tbody> </table>	Cantidad progresiva	Precio unidad [EUR]	1	6,4000 €	2	4,0300 €	3	2,8200 €	7	2,3500 €	17	1,1600 €	37	0,8500 €	75	0,6900 €	125	0,6356 €	175	0,6220 €	250	0,6172 €	350	0,5899 €	450	0,5461 €
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