

07.2025

Symbol	Unit	Description
F_n	N	Maximum spring force
L_h	mm	Loop height
L_k	mm	Length of unstressed spring body
L_0	mm	Unstressed spring length
s_2	mm	Loaded spring deflection
s_n	mm	Maximum spring deflection
sh	mm	Excursion
R	N/mm	Spring rate

The technical drawing illustrates a spring assembly with the following dimensions and parameters:

- Dimensions:**
 - L_h : Loop height
 - L_k : Length of unstressed spring body (213,75 mm)
 - L_0 : Unstressed spring length (280,00 mm with a tolerance of $\pm 4,00$ mm)
 - L_1 , L_2 , L_n : Additional length parameters
 - d : Wire diameter (4,50 mm)
 - D : Mean coil diameter (50,00 mm with a tolerance of $\pm 0,80$ mm)
 - De : End distance (0,80 mm)
 - s_1 , s_2 , s_n : Spring deflections
 - sh : Excursion
- Force-Displacement Diagram:**
 - The diagram shows a linear relationship between force (F) and displacement (s).
 - Key points on the curve include F_0 at s_1 , F_1 at s_2 , F_2 at s_n , and F_n at the maximum displacement.
 - The maximum force F_n is 532,30 N.
 - The maximum displacement s_n is 528,81 mm.

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;"> <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> <tr> <td>1</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td rowspan="3" style="text-align: center; vertical-align: middle;"> ☒ </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> </table>	Grade	De,Di,D	L0	F0-Fn	Loops	Wire diameter d to DIN 2076	1	☐	☐	☐	☐	☒	2	☒	☒	☒	☒	3	☐	☐	☐	☐				
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2 Loop shape and loop position Loop shape 1/1 German loop Loops offset to one another by 180,0 + 44,0 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;"> <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 rowspan="2">A spring resistance, associated length of tensed spring and F0</td> <td>L0, n, d ☐</td> </tr> <tr> <td>L0, D ☐</td> </tr> <tr> <td>Two spring resistances and associated length of tensed spring</td> <td>L0, n, d ☐</td> </tr> <tr> <td></td> <td>F0,D ☐</td> </tr> </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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7 Material EN 10270-1		Prices <table style="width: 100%;"> <tr> <th style="text-align: left;">Desconto por quantidade</th> <th style="text-align: left;">Preço individual [EUR]</th> </tr> <tr><td>1</td><td></td></tr> <tr><td>2</td><td>15,2800 €</td></tr> <tr><td>3</td><td>12,1700 €</td></tr> <tr><td>7</td><td>7,9400 €</td></tr> <tr><td>17</td><td>6,0400 €</td></tr> <tr><td>37</td><td>6,0400 €</td></tr> <tr><td>75</td><td>6,0400 €</td></tr> <tr><td>125</td><td>6,0400 €</td></tr> <tr><td>175</td><td>6,0400 €</td></tr> <tr><td>250</td><td>6,0400 €</td></tr> <tr><td>350</td><td>6,0400 €</td></tr> <tr><td></td><td>6,0400 €</td></tr> </table>	Desconto por quantidade	Preço individual [EUR]	1		2	15,2800 €	3	12,1700 €	7	7,9400 €	17	6,0400 €	37	6,0400 €	75	6,0400 €	125	6,0400 €	175	6,0400 €	250	6,0400 €	350	6,0400 €		6,0400 €
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8 Wire or rod surface ☒ drawn ☐ rolled ☐ metal-cut																												
9 Surface treatment 																												
Remarks País de origem: DE Número de tarifa alfandegária: 73202085																												