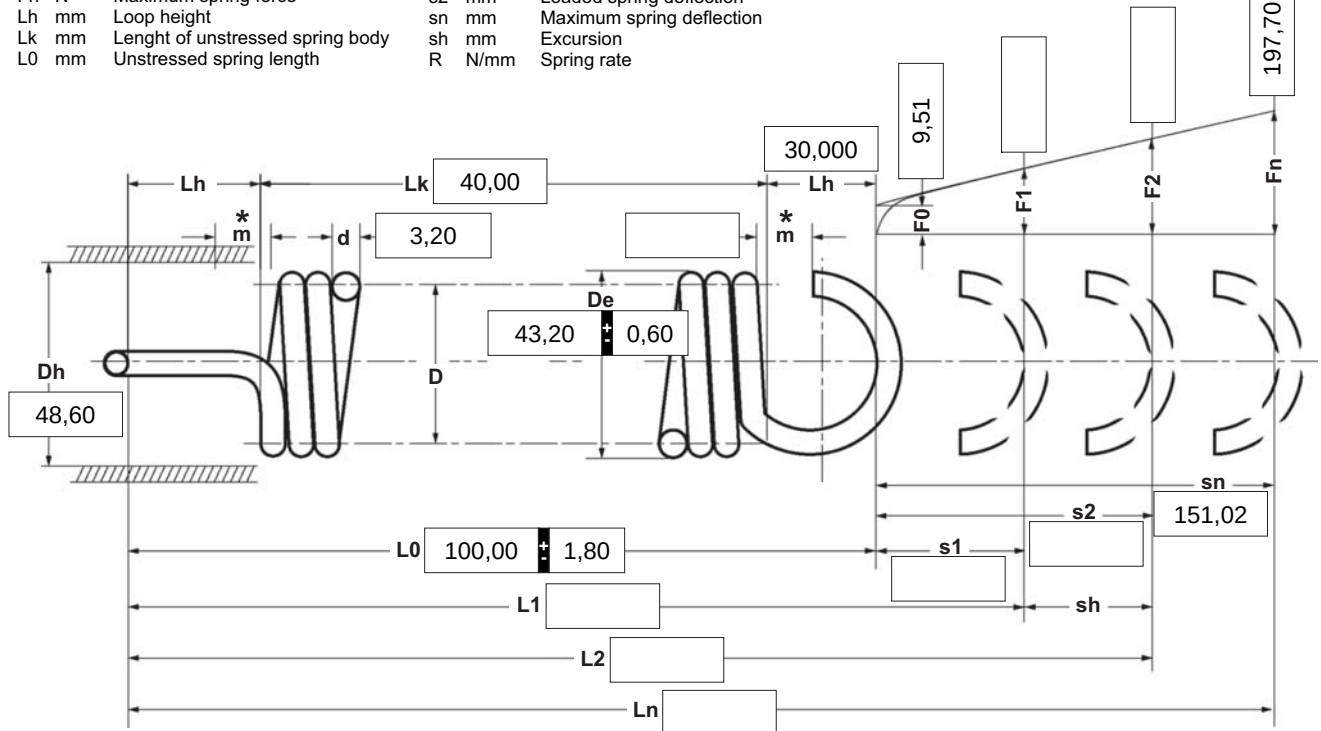


|    |    |                                  |    |      |                               |
|----|----|----------------------------------|----|------|-------------------------------|
| D  | mm | Wire diameter                    | L1 | mm   | Prestressed spring length     |
| D  | mm | Mean coil diameter               | L2 | mm   | Loaded spring length          |
| De | mm | Outer coil diameter              | Ln | mm   | Maximum spring length         |
| Dh | mm | Minimum diameter of bush         | m  | mm   | Loop opening width            |
| F0 | N  | Initial tension                  | n  | pc.  | Number of active coils        |
| F1 | N  | Prestressed spring force         | nt | pc.  | Total number of coils         |
| F2 | N  | Loaded spring force              | s1 | mm   | Prestressed spring deflection |
| Fn | N  | Maximum spring force             | s2 | mm   | Loaded spring deflection      |
| Lh | mm | Loop height                      | sn | mm   | Maximum spring deflection     |
| Lk | mm | Length of unstressed spring body | sh | mm   | Excursion                     |
| L0 | mm | Unstressed spring length         | R  | N/mm | Spring rate                   |

Weight g      Weight of one spring

07.2025

- \* Loops are stocked without openings ( $m = 0,00$ ). However it is possible to have an opening cut into the loop at an extra cost, without causing any delay.



|   |    |   |       |        |         |
|---|----|---|-------|--------|---------|
| n | nt | R | 1,247 | Weight | 105,885 |
|---|----|---|-------|--------|---------|

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

| <b>1 Coiling direction</b><br><input type="checkbox"/> left <input checked="" type="checkbox"/> right                                                                                                                                                                                                                                                                                               | <b>4 Stress cyc. end. N</b> <input style="width: 100%;" type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>10 Tolerances to DIN 2097</b><br><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>F0-Fn</th> <th>Loops</th> <th>Wire diameter d to DIN 2076</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>2</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>3</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table> |                          | Grade                                                          | De, Di, D                                 | L0                                                             | F0-Fn                                                               | Loops                                                         | Wire diameter d to DIN 2076                                         | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |  | 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|--|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|---|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| Grade                                                                                                                                                                                                                                                                                                                                                                                               | De, Di, D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | L0                                                             | F0-Fn                                     | Loops                                                          | Wire diameter d to DIN 2076                                         |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| 1                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | <input type="checkbox"/>                                       | <input type="checkbox"/>                  | <input type="checkbox"/>                                       |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| 2                                                                                                                                                                                                                                                                                                                                                                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | <input checked="" type="checkbox"/>                            | <input checked="" type="checkbox"/>       | <input checked="" type="checkbox"/>                            |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| 3                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <input type="checkbox"/> | <input type="checkbox"/>                                       | <input checked="" type="checkbox"/>       |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| <b>2 Loop shape and loop position</b><br>Loop shape<br><div style="border: 1px solid black; padding: 5px; margin: 5px 0;">1/1 German loop</div> Loops offset to one another<br>by <div style="display: inline-block; border: 1px solid black; padding: 2px 10px; text-align: center;">180,0 <span style="font-size: 0.8em;">+ -</span> 25,0</div> degrees          (in the dir. of the right helix) | <b>5 Stress cycle frequ. n</b> <input style="width: 100%;" type="text"/> /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                |                                           |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| <b>6 Application temp.</b> <input style="width: 100%;" type="text"/> °C                                                                                                                                                                                                                                                                                                                             | <b>7 Material</b><br><input style="width: 100%;" type="text"/> 1.4310                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                |                                           |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| <b>8 Wire or rod surface</b><br><input checked="" type="checkbox"/> drawn <input type="checkbox"/> rolled <input type="checkbox"/> metal-cut                                                                                                                                                                                                                                                        | <b>9 Surface treatment</b><br><input style="width: 100%;" type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                |                                           |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| <b>3 Excursion sh</b> <input style="width: 100%;" type="text"/> mm                                                                                                                                                                                                                                                                                                                                  | <b>11 Production compensation through</b><br><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 <input checked="" type="checkbox"/></td> </tr> <tr> <td>A spring resistance, associated length of tensed spring and F0</td> <td>L0, n, d <input type="checkbox"/><br/>L0, D <input type="checkbox"/></td> </tr> <tr> <td>Two spring resistances and associated length of tensed spring</td> <td>L0, n, d <input type="checkbox"/><br/>F0, D <input type="checkbox"/></td> </tr> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | A spring resistance, associated length of tensed spring and L0 | F0, D <input checked="" type="checkbox"/> | A spring resistance, associated length of tensed spring and F0 | L0, n, d <input type="checkbox"/><br>L0, D <input type="checkbox"/> | Two spring resistances and associated length of tensed spring | L0, n, d <input type="checkbox"/><br>F0, D <input type="checkbox"/> |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| A spring resistance, associated length of tensed spring and L0                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | F0, D <input checked="" type="checkbox"/>                      |                                           |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| A spring resistance, associated length of tensed spring and F0                                                                                                                                                                                                                                                                                                                                      | L0, n, d <input type="checkbox"/><br>L0, D <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                |                                           |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| Two spring resistances and associated length of tensed spring                                                                                                                                                                                                                                                                                                                                       | L0, n, d <input type="checkbox"/><br>F0, D <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                |                                           |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |
| <b>Remarks</b><br><br>Paese d'origine: DE   Numero della tariffa doganale: 73202085                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                |                                           |                                                                |                                                                     |                                                               |                                                                     |   |                          |                          |                          |                          |  |   |                                     |                                     |                                     |                                     |  |   |                          |                          |                          |                          |                                     |