

12.2025

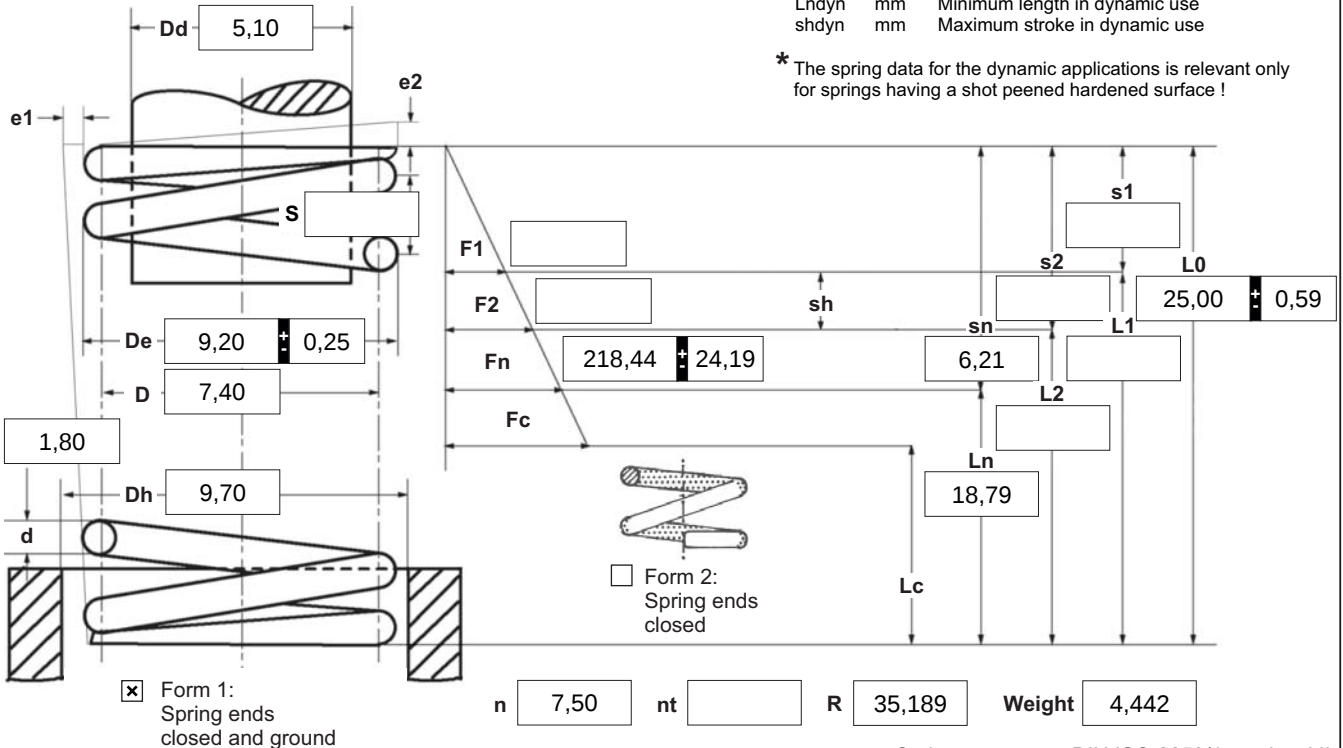
d mm Wire diameter  
D mm Mean coil diameter  
Dd mm Diameter of mandrel  
De mm Outer coil diameter  
Dh mm Diameter of bush  
e1 mm Perm.dev. perpendicular line  
e2 mm Perm.dev. parallel line  
F1 N Prestressed spring force  
F2 N Loaded spring force

F<sub>n</sub> N Maximum force in static use  
F<sub>c</sub> N Theoretic maximum force at L<sub>c</sub>  
L0 mm Length of unstressed spring  
L1 mm Prestressed spring length  
L2 mm Loaded spring length  
L<sub>k</sub> mm Buckling length  
L<sub>n</sub> mm Minimum length in static use  
L<sub>c</sub> mm Block length  
n pc. Active coils

nt pc. Total coils  
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

F<sub>ndyn</sub> N Maximum force in dynamic force  
F<sub>ndtol</sub> N (+/-) tolerance of maximum dynamic force  
L<sub>ndyn</sub> mm Minimum length in dynamic use  
sh<sub>dyn</sub> 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

**2 Dynamic load \***

F<sub>ndyn</sub> 188,61  
F<sub>ndtol</sub> 23,74  
L<sub>ndyn</sub> 19,64  
sh<sub>dyn</sub> 2,81

**3 Excursion sh** mm

**4 Stress cyc. end. N**

**5 Stress cycle frequ. n** /

**6 Application temp.** °C

**Remarks**

País de origen: DE | Número de arancel aduanero: 73202081

**7 Guidance and seat to DIN EN 13906-1**

☐ mandrel ☐ bush

Buckling length **L<sub>k</sub>** at

v=0,5 / Bild 5 0,00 mm

**8 Material**

EN 10270-1

**9 Wire or rod surface**

☒ drawn ☐ rolled ☐ metal-cut

**10 Springs deburred** ☐ inside ☐ outside

**11 Surface treatment** ☐ shot peened

**12 Tolerances to DIN EN 15800**

| Grade | De, Di, D                           | L0                                  | F1, F2                              | e1, e2                              | Wire diameter d to DIN 2076         |
|-------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1     | <input type="checkbox"/>            | <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"/> | <input checked="" type="checkbox"/> |
| 3     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

**13 Production compensation through**

|                                                                |               |                                     |
|----------------------------------------------------------------|---------------|-------------------------------------|
| A spring resistance and associated length of tensed spring     | L0            | <input type="checkbox"/>            |
| A spring resistance, associated length of tensed spring and L0 | n, d          | <input checked="" type="checkbox"/> |
|                                                                | n, De, Di     | <input type="checkbox"/>            |
| Two spring resistances and associated lengths of tensed spring | L0, n, d      | <input type="checkbox"/>            |
|                                                                | L0, n, De, Di | <input type="checkbox"/>            |

**14 Setting springs**

All springs which show setting tendency because of their size are pre-set within the production process.

**Prices**

| Cantidad progresiva | Precio unidad [EUR] |
|---------------------|---------------------|
| 1                   | 4,9400 €            |
| 2                   | 3,4800 €            |
| 3                   | 3,3200 €            |
| 7                   | 1,9900 €            |
| 17                  | 1,0000 €            |
| 37                  | 0,6100 €            |
| 75                  | 0,4600 €            |
| 125                 | 0,3945 €            |
| 175                 | 0,3631 €            |
| 250                 | 0,3193 €            |
| 350                 | 0,2780 €            |
| 450                 | 0,2212 €            |