

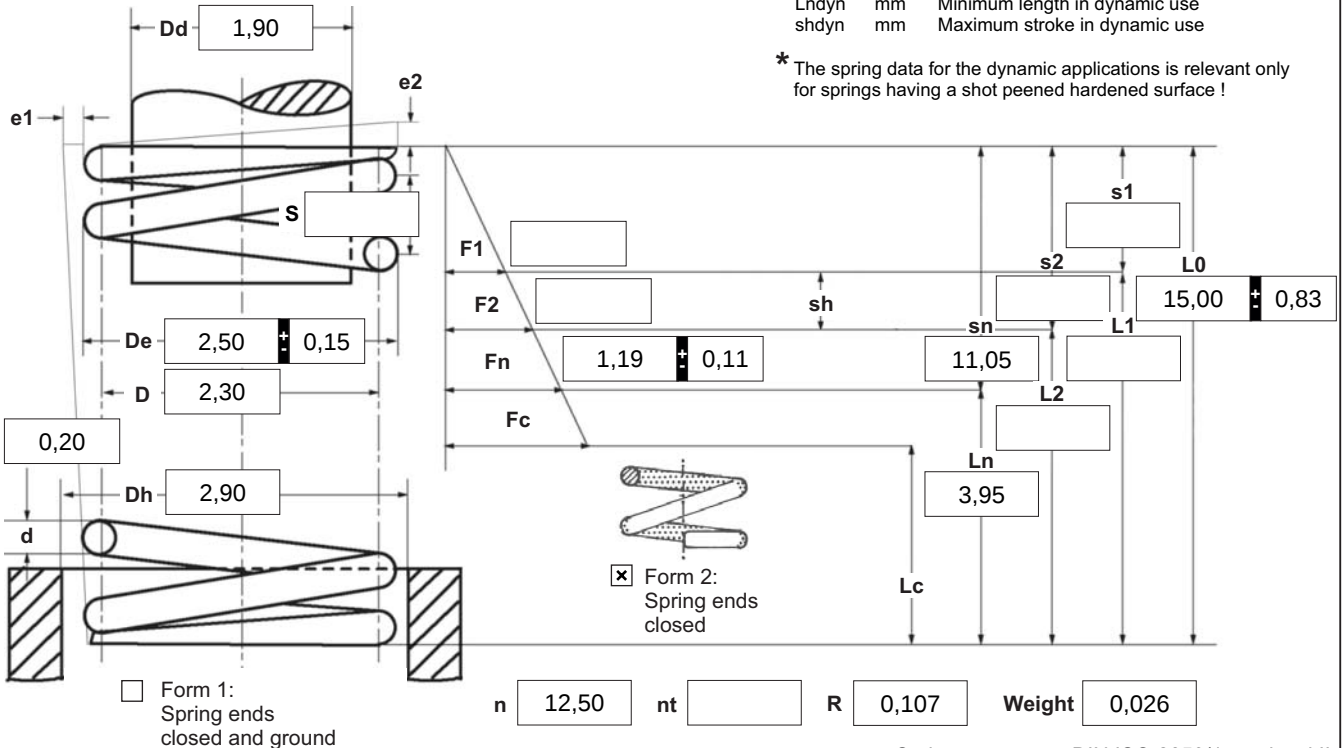
d mm Wire diameter  
 D mm Mean coil diameter  
 Dd mm Diameter of mandrel  
 De mm Outer coil diameter  
 Dh mm Diameter of bush  
 e1 mm Perm.dev. perpendicular line  
 e2 mm Perm.dev. parallel line  
 F1 N Prestressed spring force  
 F2 N Loaded spring force

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> 1,15

F<sub>ndtol</sub> 0,11

L<sub>ndyn</sub> 4,32

sh<sub>dyn</sub> 3,84

# 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 10,18 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                   | 4,8100 €            |
| 2                   | 3,3900 €            |
| 3                   | 3,2300 €            |
| 7                   | 1,8100 €            |
| 17                  | 0,7800 €            |
| 37                  | 0,4700 €            |
| 75                  | 0,2700 €            |
| 125                 | 0,2226 €            |
| 175                 | 0,1689 €            |
| 250                 | 0,1503 €            |
| 350                 | 0,1199 €            |
| 450                 | 0,1011 €            |