

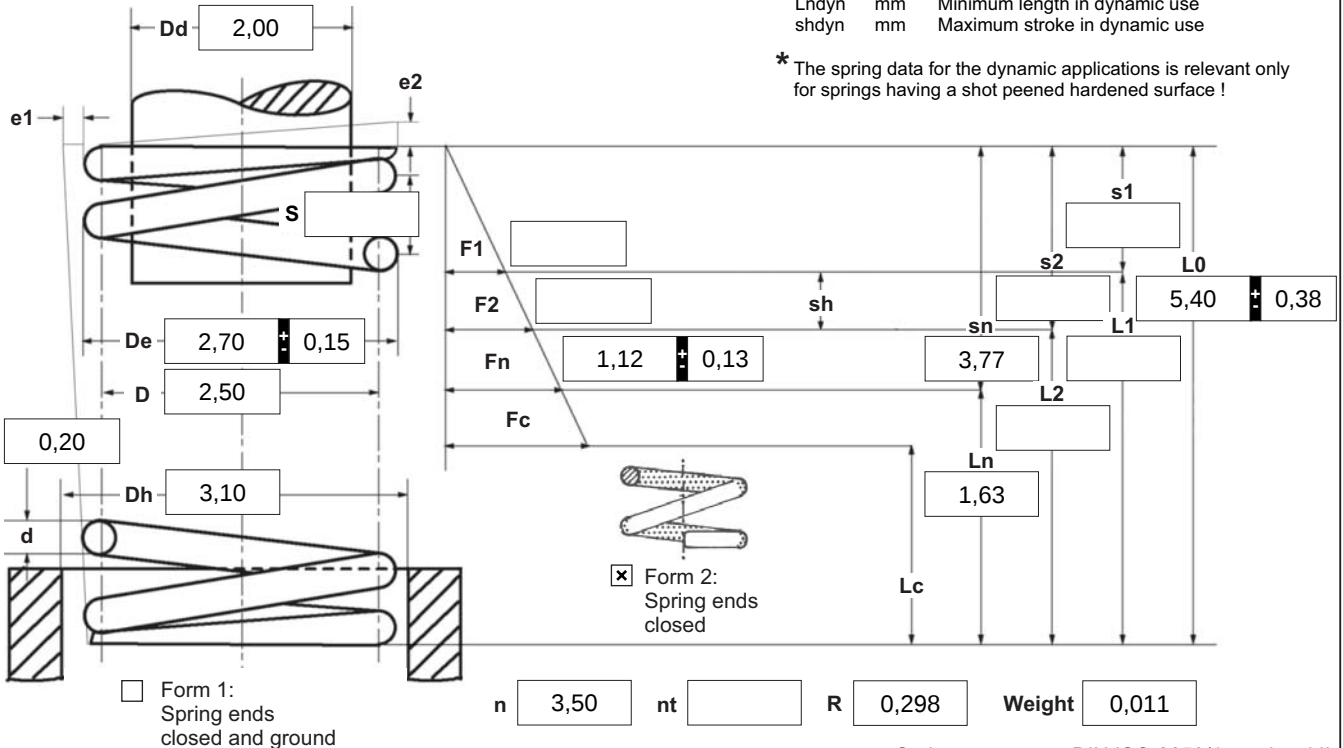
d mm Wire diameter  
D mm Mean coil diameter  
Dd mm Diameter of mandrel  
De mm Outer coil diameter  
Dh mm Diameter of bush  
e1 mm Perm.dev. perpendicular line  
e2 mm Perm.dev. parallel line  
F1 N Prestressed spring force  
F2 N Loaded spring force

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> 1,09  
F<sub>ndtol</sub> 0,13  
L<sub>ndyn</sub> 1,75  
sh<sub>dyn</sub> 1,25

# 3 Excursion sh

mm

# 4 Stress cyc. end. N

# 5 Stress cycle frequ. n

/

# 6 Application temp.

°C

# Remarks

Paese d'origine: DE | Numero della tariffa doganale: 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     | □         | □  | □      | □      | □                           |
| 2     | ☒         | ☒  | ☒      | ☒      | ☒                           |
| 3     | □         | □  | □      | □      | ☒                           |

# 13 Production compensation through

|                                                                |               |   |
|----------------------------------------------------------------|---------------|---|
| A spring resistance and associated length of tensed spring     | L0            | □ |
| A spring resistance, associated length of tensed spring and L0 | n, d          | ☒ |
|                                                                | n, De, Di     | □ |
| Two spring resistances and associated lengths of tensed spring | L0, n, d      | □ |
|                                                                | L0, n, De, Di | □ |

# 14 Setting springs

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

# Prices

| Quantità progressive | Prezzo singolo [EUR] |
|----------------------|----------------------|
| 1                    | 4,6100 €             |
| 2                    | 3,2500 €             |
| 3                    | 3,1000 €             |
| 7                    | 1,7300 €             |
| 17                   | 0,6900 €             |
| 37                   | 0,3600 €             |
| 75                   | 0,1900 €             |
| 125                  | 0,1503 €             |
| 175                  | 0,1189 €             |
| 250                  | 0,0939 €             |
| 350                  | 0,0694 €             |
| 450                  | 0,0630 €             |