

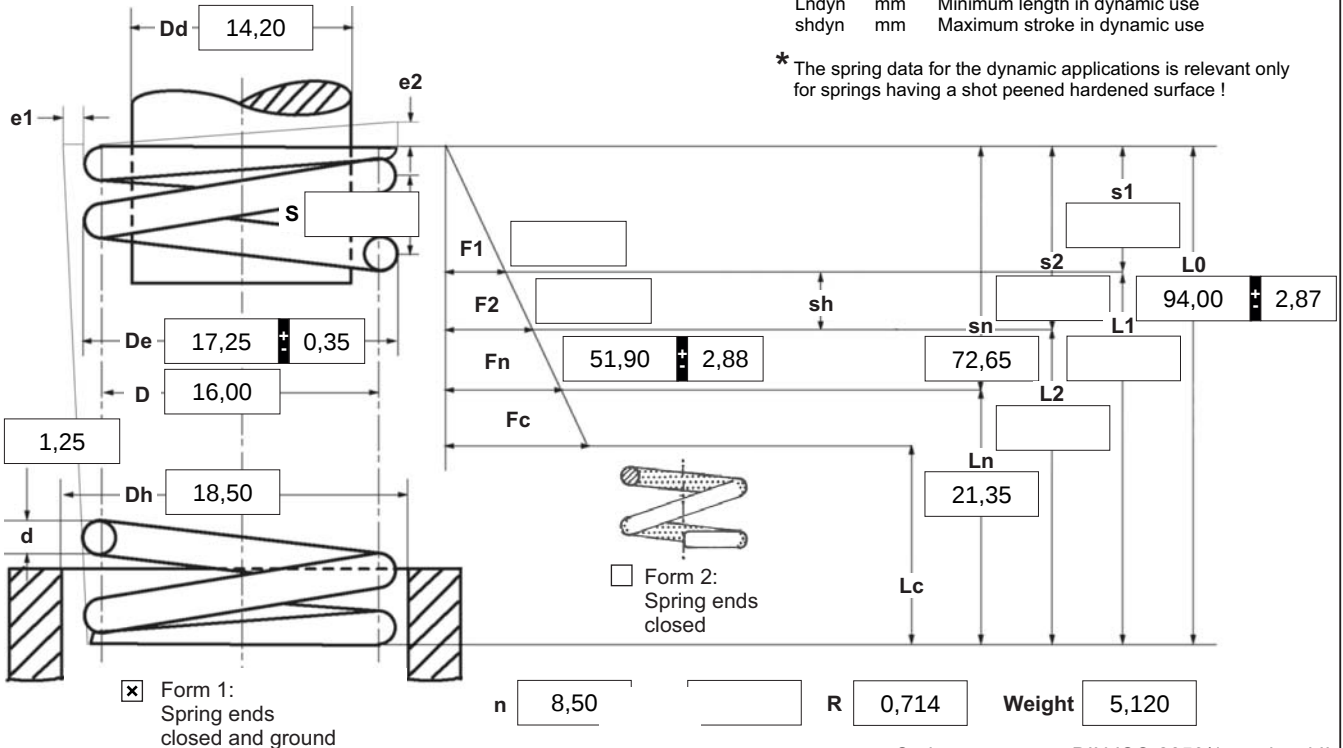
d mm Wire diameter
 D mm Mean coil diameter
 Dd mm Diameter of mandrel
 De mm Outer coil diameter
 Dh mm Diameter of bush
 e1 mm Perm.dev. perpendicular line
 e2 mm Perm.dev. parallel line
 F1 N Prestressed spring force
 F2 N Loaded spring force

F_n N Maximum force in static use
 F_c N Theoretic maximum force at L_c
 L0 mm Length of unstressed spring
 L1 mm Prestressed spring length
 L2 mm Loaded spring length
 L_k mm Buckling length
 L_n mm Minimum length in static use
 L_c 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_{ndyn} N Maximum force in dynamic force
 F_{ndtol} N (+/-) tolerance of maximum dynamic force
 L_{ndyn} mm Minimum length in dynamic use
 sh_{dyn} 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_{ndyn} 45,79

F_{ndtol} 2,86

L_{ndyn} 29,90

sh_{dyn} 22,86

3 Excursion sh

mm

4 Stress cyc. end. N

5 Stress cycle frequ. n

/

6 Application temp.

°C

7 Guidance and seat to DIN EN 13906-1

☐ mandrel ☐ bush

Buckling length L_k at

v=0,5 / Bild 5 53,38 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.