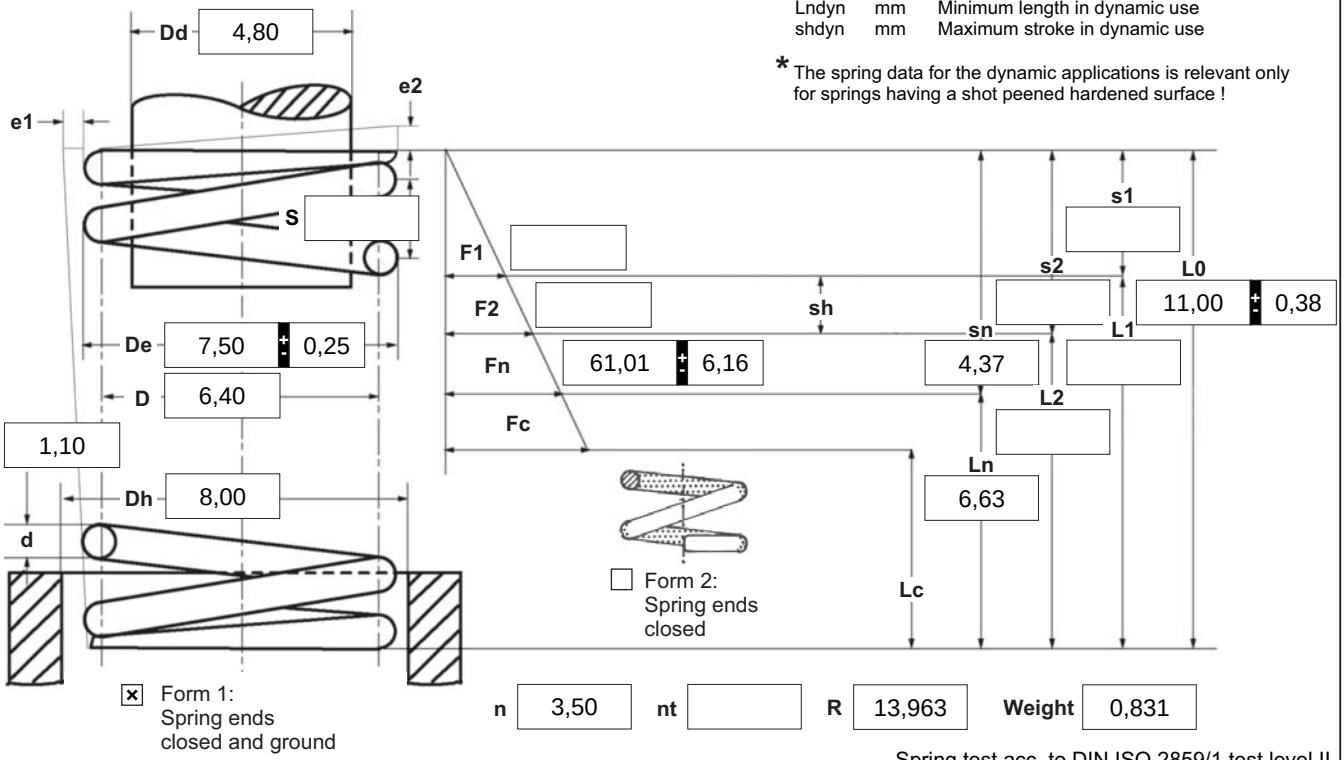
Data sheet Compression spring : VD-180A

GUTEKUNST FEDERN

07.2024

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
Fn	N	Maximum force in static use
Fc	N	Theoretic maximum force at Lc
L0	mm	Length of unstressed spring
L1	mm	Prestressed spring length
L2	mm	Loaded spring length
Lk	mm	Buckling length
Ln	mm	Minimum length in static use
Lc	mm	Block length
n	pc.	Aktive 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
Fndyn	N	Maximum force in dynamic force
Fndtol	N	(+/-) tolerance of maximum dynamic force
Lndyn	mm	Minimum length in dynamic use
shdyn	mm	Maximum stroke in dynamic use

* The spring data for the dynamic applications is relevant only for springs having a shot peened hardened surface !



n 3,50 | nt | R 13,963 | Weight 0,831

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

1 Coiling direction

☐ left ☒ right

2 Dynamic load *

Fndyn	56,97
Fndtol	6,10
Lndyn	6,92
shdyn	1,46

3 Excursion sh mm

4 Stress cyc. end. N

5 Stress cycle frequ. n /

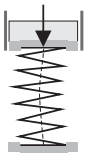
6 Application temp. °C

7 Guidance and seat to DIN EN 13906-1

☐ mandrel ☐ bush

Buckling length **Lk** at

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



8 Material

EN 10270-3-1.4310

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 Prouction 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.

Remarks

Country of origin: DE | Customs tariff number: 73202081

Prices

Quantity scale	Single price [EUR]
1	5,0100 €
2	3,5300 €
3	3,3700 €
7	2,1400 €
17	1,0400 €
37	0,6600 €
75	0,5000 €
125	0,4132 €
175	0,3696 €
250	0,3256 €
350	0,2842 €
450	0,2464 €

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