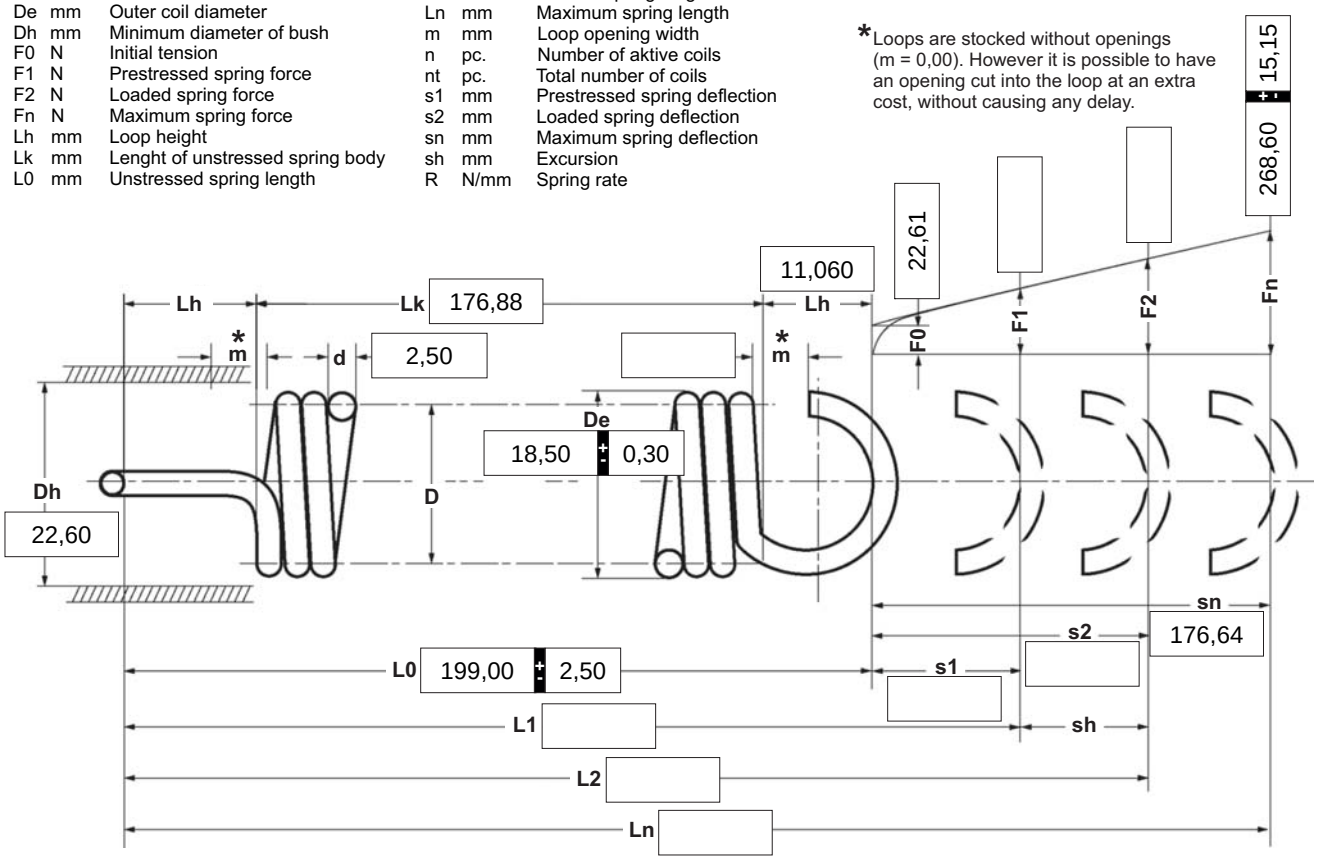
Data sheet Extension spring : Z-159DX

GUTEKUNST FEDERN

08.2025

d	mm	Wire diameter
D	mm	Mean coil diameter
De	mm	Outer coil diameter
Dh	mm	Minimum diameter of bush
F0	N	Initial tension
F1	N	Prestressed spring force
F2	N	Loaded spring force
Fn	N	Maximum spring force
Lh	mm	Loop height
Lk	mm	Lenght of unstressed spring body
L0	mm	Unstressed spring length
L1	mm	Prestressed spring length
L2	mm	Loaded spring length
Ln	mm	Maximum spring length
m	mm	Loop opening width
n	pc.	Number of aktive coils
nt	pc.	Total number of coils
s1	mm	Prestressed spring deflection
s2	mm	Loaded spring deflection
sn	mm	Maximum spring deflection
sh	mm	Excursion
R	N/mm	Spring rate
Weight	g	Weight of one spring

*Loops are stocked without openings (m = 0,00). However it is possible to have an opening cut into the loop at an extra cost, without causing any delay.



n | nt | R 1,393 | Weight 139,500

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

1 Coiling direction

☐ left ☒ right

2 Loop shape and loop position

Loop shape: 1/1 German loop

Loops offset to one another by 270,0 ± 46,0 degrees (in the dir. of the right helix)

3 Excursion sh mm

4 Stress cyc. end. N

5 Stress cycle frequ. n /

6 Application temp. °C

7 Material

EN 10270-1

8 Wire or rod surface

☒ drawn ☐ rolled ☐ metal-cut

9 Surface treatment

10 Tolerances to DIN 2097

Grade	De,Di,D	L0	F0-Fn	Loops	Wire diameter d to DIN 2076
1	☐	☐	☐	☐	
2	☒	☒	☒	☒	
3	☐	☐	☐	☐	☒

11 Production compensation through

A spring resistance, associated length of tensed spring and L0	F0, D	☒
A spring resistance, associated length of tensed spring and F0	L0, n, d	☐
	L0, D	☐
Two spring resistances and associated length of tensed spring	L0, n, d	☐
	F0,D	☐

Remarks

Country of origin: DE | Customs tariff number: 73202085

Prices

Quantity scale	Single price [EUR]
1	7,0400 €
2	4,4400 €
3	3,4600 €
7	2,9500 €
17	1,5300 €
37	1,2300 €
75	1,0500 €
125	1,0500 €
175	1,0500 €
250	1,0500 €
350	1,0500 €
450	1,0500 €

Gutekunst + Co.KG Spring Factories · Carl-Zeiss-Straße 15 · D-72555 Metzingen
Sales +49 7123 960-192 · Customize springs +49 7123 960-193 · Main +49 7123 960-0
Fax +49 7123 960-195 · E-mail: order@gutekunst-co.com