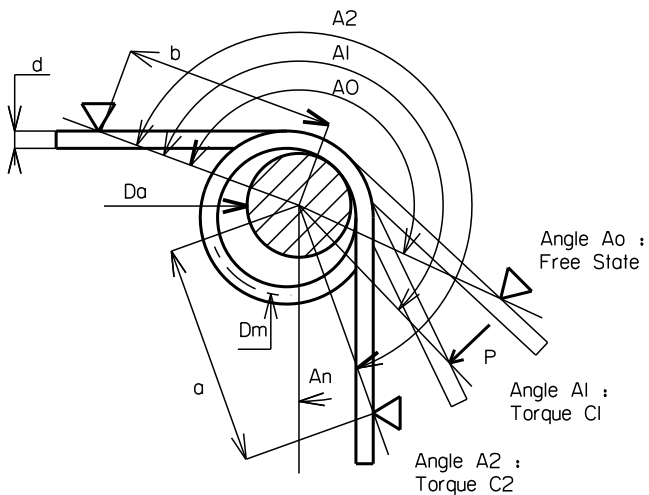
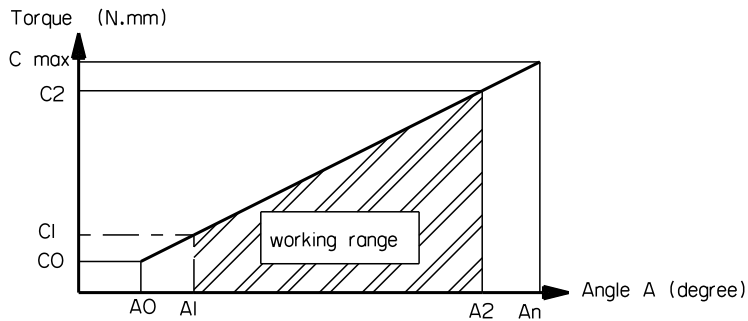


DESIGN PRINCIPLE



$$C = R (A - A_o)$$

NOTE:  
 $C = P \times a$  . with P(N) perpendicular  
to the lever arm a (mm)

CALCULATED VALUES

(Indicative values )

Wire diameter ----- 0.7 mm  
Mean coil diameter ----- 3 mm  
Number of coils ----- 2.36 TURNS BOTH SIDE  
Spring rate R ----- 1.54 N.mm/deg  
Free angle Ao ----- 261.4 deg  
Stress under A2 ----- %Rm  
Maximal stress ----- %Rm  
Under angle ----- deg  
Tensile strength ----- 2100 MPa

OPERATING DATA

Spring function : -

- Service requirement :
- Number of guaranteed operations : 10 000  
in operating range : L1-L2
  - Maximum temperature : < 100 °C
  - Coil direction : Right and Left
  - Length of lever arm :  
a = 3.5 mm      b = 3.5 mm
  - Material : Managed by Symphony

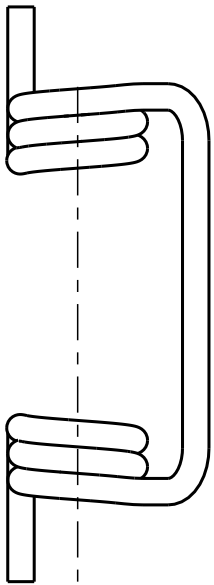
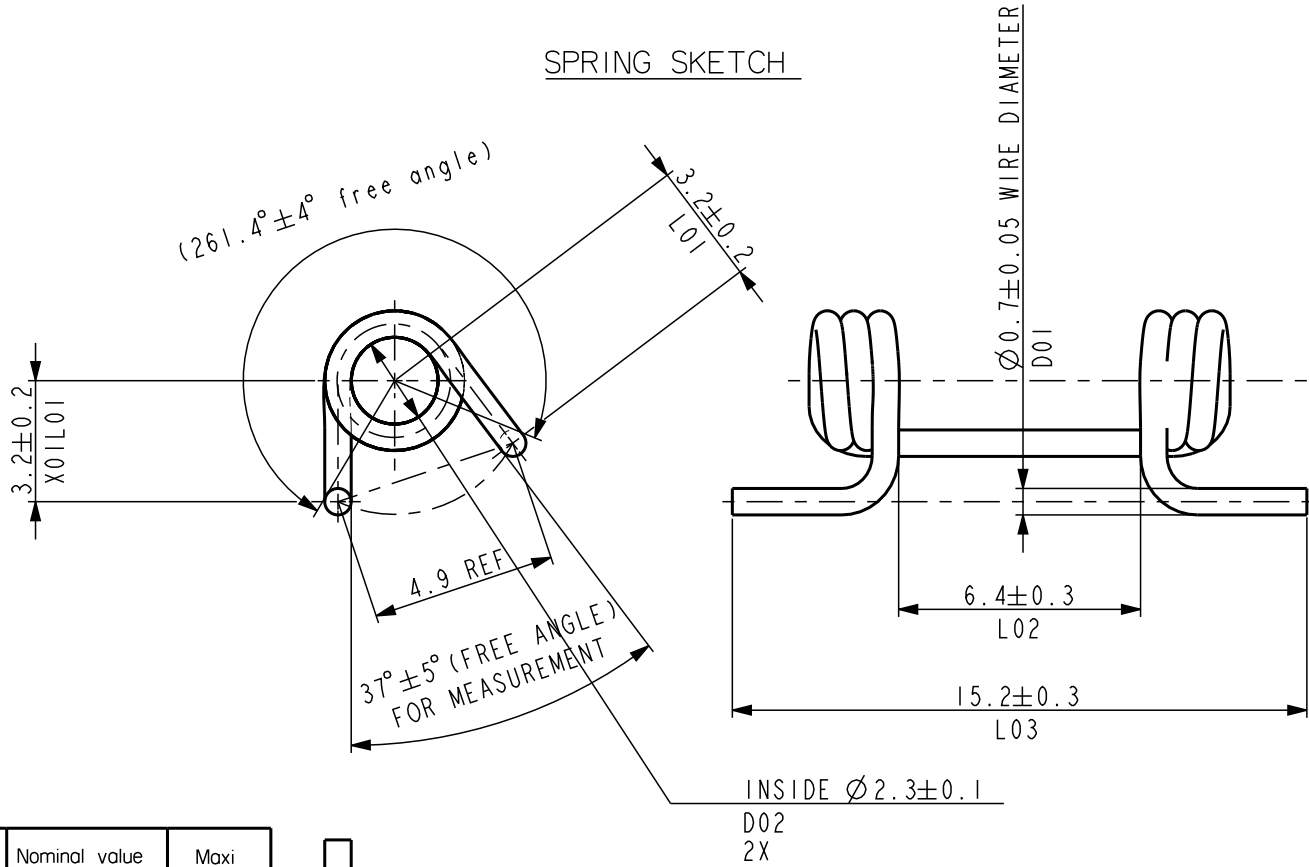
MATERIAL RECOMMENDATION

Use of CHLORINE products FORBIDDEN in the  
manufacturing process of the material and the component.  
In the case of thermal treatment > 300°C,  
it is OBLIGATORY to carry out a degreasing before this  
thermal treatment  
Stress relieved

| DATA TABLE                       | Mini | Nominal value | Maxi |
|----------------------------------|------|---------------|------|
| under L1 = 0.4 mm, load P1 (N)   | 8    | 11.5          | 15   |
| under L2 = 1.9 mm, load P2 (N)   | 41.8 | 51.8          | 61.8 |
| Spring rate R (N.mm/deg)         |      |               |      |
| Maximal operating angle An (deg) |      |               |      |
| Assembly Angle (deg)             |      |               |      |
| Shaft diameter Da (mm)           |      |               |      |
| De maxi. (mm)                    |      |               |      |
| Di mini. (mm)                    |      |               |      |
| Body length Lk under A2 (mm)     |      |               |      |

\* - INDICATIVE VALUES

SPRING SKETCH



SCALE 1.000

|                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                                          |                                  |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------|----------------------------------|---------------------|
|                                                                                                                                                                                                                                                                                                                       | Scale:<br>5.000 | Tolerancing Standard :<br>ISO 8015       | Units of measure :<br>millimeter |                     |
|                                                                                                                                                                                                                                                                                                                       |                 | LOCKING SPRING MAGNETIC                  |                                  |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                 | LOCKING SPRING MAGNETIC                  |                                  |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                 | Number:<br><br>BBV4205402                |                                  | Revision:<br><br>05 |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                                          |                                  | Sheet:<br><br>1 / 1 |
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