

Lateral Plungers • with plastic spring and pin

EH 22150.



Product Description

To be used for positioning and applying pressure, e.g. during painting and sandblasting.

Material

Spring

- plastic

Pin

- Steel, case-hardened, blackened
- Stainless steel
- Thermoplastic POM, white

Assembly

It is recommended to moisten the body.

Installation by pressing in.

Formula for calculating the center distance for the mounting hole:

$$l_0 = z/2 + w + x,$$

l_0 = center distance,

y = workpiece height,

w = workpiece length,

x = coordinate dimension,

s = stroke,

z = stop diameter

Calculation dimension x :

y greater than or equal to $l_2 - d_2/2$,

then $x = d_2/2 - s$

or

y smaller than $l_2 - d_2/2$,

then $x = d_2/2 - s - [(l_2 - d_2/2 - y) * 0,123]$

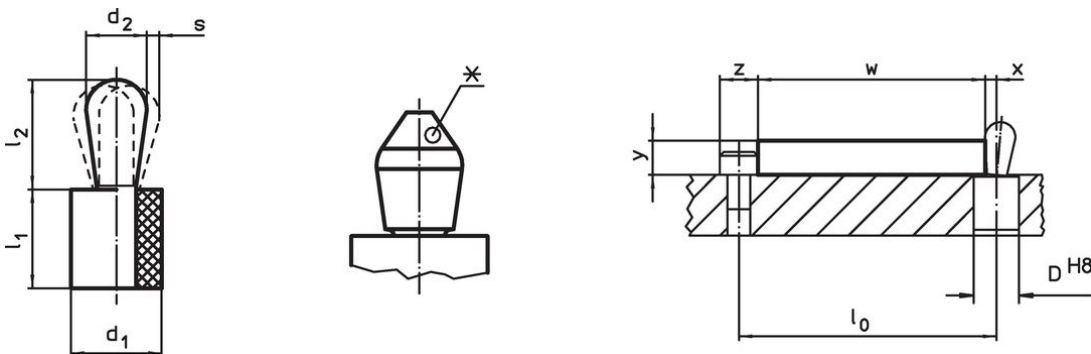
Characteristic

Version light spring load = blue spring

Version standard spring load = red spring

Version heavy spring load = green spring

Drawing



*some sizes (see chart) have a deviating pin shape


Order information

| Dimensions | | Spring load F max. ¹⁾ ~ [N] | Dimensions | | Stroke s [mm] | Location hole D H8 [mm] | $x^2)$ [mm] | max. [°C] | [g] | Art. No. |
|--|-------|--|-------------|--------------------|---------------------|----------------------------------|----------------|--------------|-----|--------------------------|
| d_1 | d_2 | | l_1 -1 | l_2 ± 0.5 | | | | | | |
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [°C] | [g] | | |
| Pin: Steel/pin from steel, light spring load | | | | | | | | | | |
| 6 | 3 | 10 | 7 | 3.7 | 0.2 | 5.9 | 1.0 | 100 | 0.5 | 22150.0200 ³⁾ |
| 8 | 4 | 15 | 9 | 5.2 | 0.3 | 7.9 | 1.4 | 100 | 1.2 | 22150.0202 |
| 10 | 5 | 30 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 100 | 2.1 | 22150.0204 |
| 10 | 6 | 20 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 100 | 2.9 | 22150.0207 |

¹⁾ statistical average value

²⁾ If the workpiece height (y) is less than $l_2 - d_2/2$, the coordinate dimension (x) must be calculated.

³⁾ deviating pin shape (see drawing)



| Dimensions | | Spring load F max. ¹⁾ ~ | Dimensions | | Stroke s | Location hole D H8 | x ²⁾ | max. [°C] |  | Art. No. |
|--|----------------|---|----------------------|------------------------|-------------|--------------------------|-----------------|--------------|---|--------------------------|
| d ₁ | d ₂ | | l ₁ -1 | l ₂ ±0.5 | | | | | | |
| [mm] | [mm] | [N] | [mm] | [mm] | [mm] | [mm] | [mm] | [°C] | [g] | |
| Pin: Steel/pin from steel, standard spring load | | | | | | | | | | |
| 6 | 3 | 20 | 7 | 3.7 | 0.2 | 5.9 | 1.0 | 100 | 0.5 | 22150.0201 ³⁾ |
| 8 | 4 | 30 | 9 | 5.2 | 0.3 | 7.9 | 1.4 | 100 | 1.2 | 22150.0203 |
| 10 | 5 | 60 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 100 | 2.1 | 22150.0205 |
| 10 | 6 | 30 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 100 | 2.9 | 22150.0208 |
| 12 | 8 | 50 | 13 | 13.3 | 0.6 | 11.9 | 2.7 | 100 | 6.8 | 22150.0211 |
| 16 | 10 | 80 | 16 | 16.9 | 0.8 | 15.9 | 3.4 | 100 | 14.0 | 22150.0213 |
| Pin: Steel/pin from steel, heavy spring load | | | | | | | | | | |
| 10 | 5 | 90 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 100 | 2.1 | 22150.0206 |
| 10 | 6 | 60 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 100 | 2.9 | 22150.0209 |
| 12 | 8 | 100 | 13 | 13.3 | 0.6 | 11.9 | 2.7 | 100 | 6.8 | 22150.0212 |
| 16 | 10 | 160 | 16 | 16.9 | 0.8 | 15.9 | 3.4 | 100 | 15.0 | 22150.0214 |
| Pin: Stainless steel/pin from stainless steel, light spring load | | | | | | | | | | |
| 6 | 3 | 10 | 7 | 3.7 | 0.2 | 5.9 | 1.0 | 100 | 0.5 | 22150.0215 ³⁾ |
| 8 | 4 | 15 | 9 | 5.2 | 0.3 | 7.9 | 1.4 | 100 | 1.2 | 22150.0217 |
| 10 | 5 | 30 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 100 | 2.1 | 22150.0219 |
| 10 | 6 | 20 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 100 | 2.9 | 22150.0222 |
| Pin: Stainless steel/pin from stainless steel, standard spring load | | | | | | | | | | |
| 6 | 3 | 20 | 7 | 3.7 | 0.2 | 5.9 | 1.0 | 100 | 0.5 | 22150.0216 ³⁾ |
| 8 | 4 | 30 | 9 | 5.2 | 0.3 | 7.9 | 1.4 | 100 | 1.2 | 22150.0218 |
| 10 | 5 | 60 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 100 | 2.1 | 22150.0220 |
| 10 | 6 | 30 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 100 | 2.9 | 22150.0223 |
| 12 | 8 | 50 | 13 | 13.3 | 0.6 | 11.9 | 2.7 | 100 | 6.8 | 22150.0226 |
| 16 | 10 | 80 | 16 | 16.9 | 0.8 | 15.9 | 3.4 | 100 | 15.0 | 22150.0228 |
| Pin: Stainless steel/pin from stainless steel, heavy spring load | | | | | | | | | | |
| 10 | 5 | 90 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 100 | 2.1 | 22150.0221 |
| 10 | 6 | 60 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 100 | 2.9 | 22150.0224 |
| 12 | 8 | 100 | 13 | 13.2 | 0.6 | 11.9 | 2.7 | 100 | 6.8 | 22150.0227 |
| 16 | 10 | 160 | 16 | 16.6 | 0.8 | 15.9 | 3.4 | 100 | 15.0 | 22150.0229 |
| Pin: Thermoplastic/pin from thermoplastic, light spring load | | | | | | | | | | |
| 6 | 3 | 10 | 7 | 3.7 | 0.2 | 5.9 | 1.0 | 80 | 0.3 | 22150.0230 ³⁾ |
| 8 | 4 | 15 | 9 | 5.2 | 0.3 | 7.9 | 1.4 | 80 | 0.6 | 22150.0232 |
| 10 | 5 | 30 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 80 | 1.0 | 22150.0234 |
| 10 | 6 | 20 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 80 | 1.1 | 22150.0237 |
| Pin: Thermoplastic/pin from thermoplastic, standard spring load | | | | | | | | | | |
| 6 | 3 | 20 | 7 | 3.7 | 0.2 | 5.9 | 1.0 | 80 | 0.3 | 22150.0231 ³⁾ |
| 8 | 4 | 30 | 9 | 5.2 | 0.3 | 7.9 | 1.4 | 80 | 0.6 | 22150.0233 |
| 10 | 5 | 60 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 80 | 1.0 | 22150.0235 |
| 10 | 6 | 30 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 80 | 1.1 | 22150.0238 |
| 12 | 8 | 50 | 13 | 13.3 | 0.6 | 11.9 | 2.7 | 80 | 2.3 | 22150.0240 |
| 16 | 10 | 80 | 16 | 16.9 | 0.8 | 15.9 | 3.4 | 80 | 4.9 | 22150.0242 |
| Pin: Thermoplastic/pin from thermoplastic, heavy spring load | | | | | | | | | | |
| 10 | 5 | 90 | 9 | 7.3 | 0.4 | 9.9 | 1.6 | 80 | 1.0 | 22150.0236 |
| 10 | 6 | 60 | 9 | 10.3 | 0.5 | 9.9 | 1.9 | 80 | 1.1 | 22150.0239 |
| 12 | 8 | 100 | 13 | 13.3 | 0.6 | 11.9 | 2.7 | 80 | 2.3 | 22150.0241 |
| 16 | 10 | 160 | 16 | 16.9 | 0.8 | 15.9 | 3.4 | 80 | 5.1 | 22150.0243 |

¹⁾ statistical average value

²⁾ If the workpiece height (y) is less than l₂-d₂/2, the coordinate dimension (x) must be calculated.

³⁾ deviating pin shape (see drawing)

Accessories

| | Dimensions d ₁ [mm] |  [g] | Art. No. |
|--|--------------------------------------|--|----------------------------|
| assembly tool | | | |
|  | 6 | 23 | 22150.0840 |
| | 8 | 47 | 22150.0841 |
| | 10 | 46 | 22150.0842 |
| | 12 | 96 | 22150.0843 |
| | 16 | 145 | 22150.0844 |

Compliance

For detailed compliance information please select the desired article number.