**Wedge clamp, double-acting, type V**

**for dies with flat clamping edge**

**Type V - Clamping force vertically applied to the clamping edge**

**Application:**
- safe clamping of dies with flat clamping edge, even in case of pressure loss
- for clamping of dies in injection molding machines
- for clamping of dies on press bed and slide

**Design:**
Double-acting wedge clamp for clamping dies on the press bed or slide or for clamping dies in injection molding machines.

The wedge clamp consists of a hydraulic block cylinder and a two-piece thrust pad.

Clamping cycle: the bolt with the thrust pad first performs a defined idle stroke. When the inner stop is reached, the thrust pad is lowered onto the clamping edge.

The angle of the thrust pad has been determined to ensure that despite self-locking the oil pressure required for unclamping is not higher than that required for clamping.

Since the clamping force is vertically transmitted to the clamping point, no transverse forces occur.

The wedge clamp is available with or without position monitoring.

**Special features:**
- the clamping piston does not retract in the case of pressure drop
- available in sizes of 25 kN, 50 kN and 100 kN
- high functional reliability ensured by position monitoring and automatic cycle
- rugged and compact design
- special versions available on request
- well-proven clamping element with high degree of safety and long service life
- retracting clamping bolt ensures unrestricted die change

**Position monitoring**
The integrated position monitoring is coupled to the clamping bolt and the contact bolt and signals:

1. Clamping bolt in unclamping position
2. Clamping bolt in clamping position
3. Error message when overrunning the clamping position

**Versions**
- without position monitoring
  - max. temperature: 160 °C
  - (300 °C on request)
- with position monitoring at the side
  - max. temperature: 100 °C
Wedge clamp, double-acting
Type V - Clamping force vertically applied to the clamping edge

Max. clamping force (kN) | 25 | 50 | 100
Perm. retention force (kN) | 35 | 65 | 130
Screw DIN 912 8.8 | 144 | 240
Screw DIN 912 12.9 | 80 | 175
Max. operating pressure (bar) | 250 | 250 | 250
Cylinder-Ø (mm) | 25 | 40 | 50
Max. stroke | 2 | 2 | 2
Max. oil consumption (cm³) | 10 | 31 | 49
Clamping stroke (mm) | 1 | 1 | 1
a (mm) | 144 | 196 | 240
b (mm) | 80 | 117 | 150
e (mm) | 15 | 33 | 50
f (mm) | 95 | 100 | 140
g (± 0.2 mm) | 70 | 70 | 105
h (mm) | 65 | 85 | 100
i (mm) | 133 | 185 | 227
k (mm) | 98 | 141 | 177
l (mm) | 35,5 | 48,5 | 62,5
m (mm) | 9 | 9 | 17
Ø o (mm) | 32 | 50 | 60
p (mm) | 32 | 43 | 56
q max. (mm) | 17 | 24 | 24
r (mm) | 58 | 100
s (mm) | 13 | 16 | 22
Ø t (mm) | 13 | 17 | 21
Ø u (mm) | 20 | 26 | 32
v** (± 0.3) (mm) | 22 | 25 | 35
w (mm) | 23 | 26 | 36
x (mm) | 39 | 65 | 85
y (mm) | 26 | 47 | 50
z (mm) | 10 | 17 | 17
Weight (kg) with position monitoring up to 100°C Part no. HCR-8.2403.6601 HCR-8.2404.6611 HCR-8.2405.6621
Weight (kg) without position monitoring up to 160°C Part no. HCR-8.2403.6800 HCR-8.2404.6810 HCR-8.2405.6820

Technical data - Position monitoring

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripping function</td>
<td>N/O contact</td>
</tr>
<tr>
<td>Type</td>
<td>PNP</td>
</tr>
<tr>
<td>Nom. tripping cycle Sₙ</td>
<td>1 mm</td>
</tr>
<tr>
<td>Ambient temperature Tₐ</td>
<td>-25°C ... + 100°C *</td>
</tr>
<tr>
<td>Ambient temperature 120° for 1000 working hours.</td>
<td></td>
</tr>
<tr>
<td>Operating voltage Uᵦ</td>
<td>10 ... 30 V DC</td>
</tr>
<tr>
<td>Residual ripple/supply frequency</td>
<td>≤ 15% (SS)</td>
</tr>
<tr>
<td>Max. constant current</td>
<td>100 mA</td>
</tr>
<tr>
<td>Unit power consumption</td>
<td>≤ 10 mA</td>
</tr>
<tr>
<td>Voltage drop Uᵦ at Iₘₐₓ</td>
<td>≤ 1,5 V</td>
</tr>
<tr>
<td>Output resistance Rᵦ</td>
<td>4,7 kΩ</td>
</tr>
<tr>
<td>Material of housing</td>
<td>corrosion-proof steel</td>
</tr>
<tr>
<td>Type of connection</td>
<td>plug on the right side</td>
</tr>
<tr>
<td>Protective system acc. to DIN 40050</td>
<td>IP 67</td>
</tr>
</tbody>
</table>

Cable length: 250 mm

* A design to withstand higher temperatures is available on request

Pin assignment:

<table>
<thead>
<tr>
<th>Pin</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>brown +</td>
</tr>
<tr>
<td>2</td>
<td>white, S₂</td>
</tr>
<tr>
<td>3</td>
<td>blue -</td>
</tr>
<tr>
<td>4</td>
<td>black, S₁</td>
</tr>
</tbody>
</table>

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HCR-5700-013
HCR-5700-014
HCR-2.5012.0073 (spare part)

2.2460
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Subject to technical modification