PRODUCT SPECIFICATIONS

Gripping force diagram

Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.

Fa [N] 2500
Mx [Nm] 100
My [Nm] 90
Mr [Nm] 75

INCLUDED IN DELIVERY

Centering Disc
DST41000

RECOMMENDED ACCESSORIES

Universal Jaw Aluminium
UB310
Universal Jaw Steel
UB310ST
Pressure piece N / S
ADS310N-S
Pressure piece NC / NO / SG / SG
ADS310C-O
Alternate proximity bracket
KHA310-B-8
Inductive proximity switch - Connector M8
NJ8-E2S
Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC
Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC
Straight Fittings - Quick Connect Style
GV1-6X6
Pressure Safety Valve
DSV1-8

www.zimmer-group.com  ► Data, Drawings, 3D Models, Operating Instructions
### Order no.

<table>
<thead>
<tr>
<th></th>
<th>GD310N-C</th>
<th>GD310NC-C</th>
<th>GD310NO-C</th>
<th>GD310S-C</th>
<th>GD310SC-C</th>
<th>GD310SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2000</td>
<td>2800</td>
<td>4400</td>
<td>6200</td>
<td>6400</td>
<td>6400</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2100</td>
<td>2900</td>
<td>4600</td>
<td>6200</td>
<td>6400</td>
<td>6400</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>800</td>
<td>800</td>
<td>1800</td>
<td>1800</td>
<td>1800</td>
<td>1800</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
<td>0.07</td>
<td>0.2</td>
<td>0.1</td>
<td>0.07</td>
<td>0.2</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
<td>0.2</td>
<td>0.07</td>
<td>0.1</td>
<td>0.2</td>
<td>0.07</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+80</td>
<td>+80</td>
<td>+80</td>
<td>+80</td>
<td>+80</td>
<td>+80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>100</td>
<td>220</td>
<td>220</td>
<td>100</td>
<td>220</td>
<td>220</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.6</td>
<td>2.2</td>
<td>2.2</td>
<td>1.6</td>
<td>2.2</td>
<td>2.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

### Technical Data*

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Integrated slot for magnetic field sensor
5. Fixing for mounting block
6. Air purge connection option
7. Adapter
8. Gripper
9. Air connection (close)
10. Air connection (open)
11. Air connection, alternative (close)
12. Air connection, alternative (open)

### Hoseless air feed-through

**Installation size GD310 / 3-Jaw Concentric Grippers / pneumatic**

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com  285
3-JAW CONCENTRIC GRIPPERS
SERIES GD300

► PRODUCT ADVANTAGES

“The economical”

► Concentration on the essentials
The most economic type of gripping: This is how you reduce your production costs

► Proven T slot guide
This established and proven guiding technology stands for the highest process reliability like no other

► Compact structure
Reduces the interference contours for your application

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products welcome the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you endless possibilities.
Find the best product for your specific use:
www.zimmer-group.de

HOW TO ORDER CORRECTLY

► The product order numbers are arranged according to this diagram:

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD304</th>
<th>-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long stroke</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>High force</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>For internal gripping, self-locking, spring opening</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. Robust, lightweight housing
   - Hard-coated aluminum alloy
2. Energy supply
   - possible from several sides
3. Mounting and positioning
   - mounting possible from several sides for versatile positioning
4. Gripper jaw
   - individual gripper finger mounting
5. Wedge hook mechanism
   - synchronized the movement of the gripper jaws
   - high force transfer
6. Integrated gripping force safety device
   - spring integrated into cylinder as energy storage
7. Position sensing
   - permanent magnet for direct monitoring of piston movement
8. Integrated, adjustable switch cam
   - for direct position sensing of the gripper jaw
9. Mounting block
   - mounting for inductive proximity switch (10)

**SERIES CHARACTERISTICS**

- Number of installation sizes: 9
- Stroke per jaw: 3 mm - 30 mm
- Gripping force: 200 N - 34700 N
- Weight: 0,13 kg - 24 kg
- AP class: 3

- 10 million maintenance-free cycles (max.)
- High-strength S
- Magnetic field sensor

- Spring closing C
- Inductive sensor

- Spring opening O
- IP40
- Purged air