3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5006IL

PRODUCT SPECIFICATIONS

Gripping force diagram

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

| Mr [Nm] | 43 |
| Mx [Nm] | 70 |
| My [Nm] | 46 |
| Fa [N]  | 1250 |

TECHNICAL DATA

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<thead>
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<th>GPD5008NC-IL-10A</th>
<th>GPD5008NO-IL-10A</th>
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<th>GPD5008SC-IL-10A</th>
<th>GPD5008SO-IL-10A</th>
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<td>IO-Link</td>
<td>IO-Link</td>
<td>IO-Link</td>
<td>IO-Link</td>
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<td>Stroke per jaw [mm]</td>
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<td>0.01</td>
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<td>7</td>
<td>7</td>
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<td>5 ... +50</td>
<td>5 ... +50</td>
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<td>Voltage [V]</td>
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<td>Current consumption max. [A]</td>
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<td>IP64</td>
<td>IP64</td>
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<td>0.75</td>
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</tbody>
</table>
TECHNICAL DRAWINGS

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Air purge connection option
5. Ventilation (R+S: In dirty environments, replace filters with actual exhaust hoses and move the exhaust air outlet to a clean environment)
6. Attachment option for customer-specific fittings
7. Energy supply IO-Link (M12, 5-pole)
8. Status display

N/S
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5006IL

INCLUDED IN DELIVERY

1. Centering Disc
   024230
2. Filters
   CFILT00010
**RECOMMENDED ACCESSORIES**

1. Universal jaw aluminium - UB5006AL
2. Universal jaw steel - UB5006ST
3. Changeable jaw, loose part set - WB5006L
4. Changeable jaw, fixed part - WB5006F
5. Aluminum adjustment jaw - EB5006AL
6. Steel adjustment jaw - EB5006ST
7. Straight Fittings - Quick Connect Style - GVM5
8. Return valve - DSV06
9. Plug-in connector straight 5m - plug, socket M12 - KAG500IL

**TECHNICAL DRAWINGS ACCESSORIES**

One universal jaw is required for each gripper jaw. For each gripper jaw, one interchangeable jaw loose part set and one interchangeable jaw fixed part are needed.
3-JAW CONCENTRIC GRIPPERS
SERIES GPD5000IL

► PRODUCT ADVANTAGES

“The hybrid”
► Pneumatic drive combined with IO-Link technology
► Up to 50% reduction in cycle times and up to 90% less compressed air usage
► Connection over just one pneumatic line and IO-Link cable
► Integrated valve technology, sensor technology, status display, pressure monitoring and temperature monitoring
► Part detection down to +/- 0.05 mm for a tolerance range that can be taught for any value
► 32 workpieces data sets can be programmed
► Protected from corrosion and sealed in accordance with IP64
► Up to 30 million cycles without maintenance

► THE BEST PRODUCT FOR YOUR APPLICATION

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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:

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<tr>
<th>Order no.</th>
<th>GPD5008</th>
<th>-IL</th>
<th>-10</th>
<th>-A</th>
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<tr>
<td>Large stroke base version</td>
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<td>N</td>
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<tr>
<td>High strength base version</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
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<tr>
<td>For external gripping, self-locking, spring closing</td>
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<tr>
<td>For internal gripping, self-locking, spring opening</td>
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<tr>
<td>Integrated query and valve technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Wedge hook mechanism**
   - High forces and moments capacity
   - Synchronized gripper jaw movement

2. **Gripper jaw**
   - Gripper fingers mounted using removable centring sleeves
   - Lubricated for life via incorporated lubrication slots

3. **Steel Linear Guide**
   - Steel in steel guide
   - Enables use of extremely long gripper fingers

4. **Dual lip seal**
   - IP64
   - Prevents grease from being squeezed out, increasing service life

5. **Integrated gripping force safety device**
   - Spring built into cylinder chamber as an energy store

6. **Mounting and positioning**
   - Alternatively, on several sides for customized mounting

7. **Position sensing**
   - Integrated Hall sensor

8. **Integrated valve technology**
   - Activation of the gripper by means of a compressed air supply

9. **Integrated control module**
   - Single-cable solution via IO-Link
   - Pressure, temperature, position and other parameters are readable

**TERMS**

- **Gripping force:** arithmetic sum of the individual forces occurring at the jaws
- **Closing/opening time:** Time required for the gripper jaws to travel the entire stroke distance
- **Repeatability:** at end stops after 50/100 consecutive cycles
- **Cycle:** Path that the pistons travel for a complete opening and closing movement
- **Maintenance:** recommended at 30 mil. cycles (please see the installation instructions, download from www.zimmer-group.com)
# 3-JAW CONCENTRIC GRIPPERS
## INSTALLATION SIZE GPD5008IL

### PRODUCT SPECIFICATIONS

![Gripping force diagram](image)

- **Gripping force diagram**
  - Shows the arithmetic total of the individual forces that occur on the gripper fingers, depending on the gripper finger length.

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

![Forces and moments](image)

- **Mr [Nm]**: 60
- **Mx [Nm]**: 105
- **My [Nm]**: 65
- **Fa [N]**: 1900

### TECHNICAL DATA

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<th>Order no.</th>
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<th>GPD5008SC-IL-10-A</th>
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<td>IO-Link</td>
<td>IO-Link</td>
<td>IO-Link</td>
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<tr>
<td>Stroke per jaw [mm]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>4</td>
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<td>Gripping force in closing [N]</td>
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<td>950</td>
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<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
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<td>Operating pressure min. [bar]</td>
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<td>7</td>
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<tr>
<td>Operating pressure max. [bar]</td>
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<td>6</td>
<td>6</td>
<td>6</td>
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<td>6</td>
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<tr>
<td>Nominal operating pressure [bar]</td>
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<td>90</td>
<td>90</td>
<td>51</td>
<td>90</td>
<td>90</td>
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<td>+5 ... +50</td>
<td>+5 ... +50</td>
<td>+5 ... +50</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Integrated position sensing</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Voltage [V]</td>
<td>24</td>
<td>24</td>
<td>24</td>
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<tr>
<td>Current consumption max. [A]</td>
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<td>1.45</td>
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</tbody>
</table>
N/S

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Air purge connection option
5. Ventilation (R+S: In dirty environments, replace filters with actual exhaust hoses and move the exhaust air outlet to a clean environment)
6. Attachment option for customer-specific fittings
7. Energy supply IO-Link (M12, 5-pole)
8. Status display
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5008IL

INCLUDED IN DELIVERY

1. Centering Disc
   024231
2. Filters
   CFILT00010
**RECOMMENDED ACCESSORIES**

- Universal jaw aluminium: UB5008AL
- Universal jaw steel: UB5008ST
- Changeable jaw, loose-part set: WB5008L
- Changeable jaw, fix part: WB5008F
- Aluminum adjustment jaw: EB5008AL
- Steel adjustment jaw: EB5008ST
- Straight fittings - Quick Connect Style: GVM5
- Return valve: DSV06
- Plug-in connector straight 5 m - plug, socket M12: KAG500IL

**TECHNICAL DRAWINGS ACCESSORIES**

One universal jaw is required for each gripper jaw ③ and for each gripper jaw, one interchangeable jaw loose part set ④ and one interchangeable jaw fixed part ⑤ are needed.
3-JAW CONCENTRIC GRIPPERS
SERIES GPD5000IL

► PRODUCT ADVANTAGES

“The hybrid”

► Pneumatic drive combined with IO-Link technology
► Up to 50% reduction in cycle times and up to 90% less compressed air usage
► Connection over just one pneumatic line and IO-Link cable
► Integrated valve technology, sensor technology, status display, pressure monitoring and temperature monitoring
► Part detection down to +/- 0.05 mm for a tolerance range that can be taught for any value
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<th>-A</th>
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<tr>
<td>Large stroke base version</td>
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<tr>
<td>High strength base version</td>
<td>S</td>
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<tr>
<td>For external gripping, self-locking, spring closing</td>
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<td></td>
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<tr>
<td>For internal gripping, self-locking, spring opening</td>
<td>O</td>
<td></td>
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<tr>
<td>IO-Link control</td>
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<tr>
<td>Integrated query and valve technology</td>
<td></td>
<td></td>
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</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Wedge hook mechanism**
   - High forces and moments capacity
   - Synchronized gripper jaw movement

2. **Gripper jaw**
   - Gripper fingers mounted using removable centring sleeves
   - Lubricated for life via incorporated lubrication slots

3. **Steel Linear Guide**
   - Steel in steel guide
   - Enables use of extremely long gripper fingers

4. **Dual lip seal**
   - IP64
   - Prevents grease from being squeezed out, increasing service life

5. **Integrated gripping force safety device**
   - Spring built into cylinder chamber as an energy store

6. **Mounting and positioning**
   - Alternatively, on several sides for customized mounting

7. **Position sensing**
   - Integrated Hallsensor

8. **Integrated valve technology**
   - Activation of the gripper by means of a compressed air supply

9. **Integrated control module**
   - Single-cable solution via IO-Link
   - Pressure, temperature, position and other parameters are readable

**TERMS**

- **Gripping force:** arithmetic sum of the individual forces occurring at the jaws
- **Closing/opening time:** Time required for the gripper jaws to travel the entire stroke distance
- **Repeatability:** at end stops after 50/100 consecutive cycles
- **Cycle:** Path that the pistons travel for a complete opening and closing movement
- **Maintenance:** recommended at 30 mil. cycles (please see the installation instructions, download from www.zimmer-group.com)
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5010IL

► PRODUCT SPECIFICATIONS

Gripping force diagram

- Shows the arithmetic total of the individual forces that occur on the gripper fingers, depending on the gripper finger length.
- Displays static forces and moments that can also have an effect, besides the gripping force.

<table>
<thead>
<tr>
<th></th>
<th>Mr [Nm]</th>
<th>Mx [Nm]</th>
<th>My [Nm]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC / NO</td>
<td>75</td>
<td>125</td>
<td>95</td>
<td>2700</td>
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<tr>
<td>SC / SO</td>
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<td>95</td>
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<td>IO-Link</td>
<td>IO-Link</td>
<td>IO-Link</td>
<td>IO-Link</td>
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<tr>
<td>Stroke per jaw [mm]</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>5</td>
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<td>5050</td>
<td>6930</td>
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<td></td>
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<td>850</td>
<td>1880</td>
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<td>Permissible weight per jaw max [kg]</td>
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<td>130</td>
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<td>Repetition accuracy +/- [mm]</td>
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<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td></td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td></td>
<td>8</td>
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<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Nominal operating pressure [bar]</td>
<td></td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td></td>
<td></td>
<td></td>
<td>+5 ... +50</td>
<td></td>
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<tr>
<td>Air volume per cycle [cm³]</td>
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<td>100</td>
<td>200</td>
<td>200</td>
<td>100</td>
<td>200</td>
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<tr>
<td>Integrated valve technology</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Integrated position sensing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Voltage [V]</td>
<td>24</td>
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<tr>
<td>Current consumption max. [A]</td>
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<td>0.1</td>
<td>0.1</td>
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<td>Protection to IEC 60529</td>
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<td>IP64</td>
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<tr>
<td>Weight [kg]</td>
<td>2.1</td>
<td>2.5</td>
<td>2.5</td>
<td>2.1</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Gripper attachment
2 Energy supply
3 Fixing for gripper finger
4 Air purge connection option
5 Ventilation (R+S: In dirty environments, replace filters with actual exhaust hoses and move the exhaust air outlet to a clean environment)
6 Attachment option for customer-specific fittings
7 Energy supply IO-Link (M12, 5-pole)
8 Status display
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5010IL

INCLUDED IN DELIVERY

1. Centering Disc
   018187

2. Filters
   CFILT00011
► RECOMMENDED ACCESSORIES

Universal jaw aluminium  UB5010AL
Universal jaw steel  UB5010ST
Changeable jaw, loose-part set  WB5010L
Changeable jaw, fix-part  WB5010F
Aluminum adjustment jaw  EB5010AL
Steel adjustment jaw  EB5010ST
Straight Fittings - Quick Connect Style  GV1-8X6
Return valve  DSV06
Plug-in connector straight  5 m - plug, socket M12  KAG500IL

► TECHNICAL DRAWINGS ACCESSORIES

One universal jaw is required for each gripper jaw 3

For each gripper jaw, one interchangeable jaw loose part set 4 and one interchangeable jaw fixed part 5 are needed
3-JAW CONCENTRIC GRIPPERS
SERIES GPD5000IL

► PRODUCT ADVANTAGES

“The hybrid”

► Pneumatic drive combined with IO-Link technology
► Up to 50% reduction in cycle times and up to 90% less compressed air usage
► Connection over just one pneumatic line and IO-Link cable
► Integrated valve technology, sensor technology, status display, pressure monitoring and temperature monitoring
► Part detection down to +/- 0.05 mm for a tolerance range that can be taught for any value
► 32 workpieces data sets can be programmed
► Protected from corrosion and sealed in accordance with IP64
► Up to 30 million cycles without maintenance

► 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>GPD5008</th>
<th></th>
<th>-IL</th>
<th>-10</th>
<th>-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large stroke base version</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High strength base version</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>For internal gripping, self-locking, spring opening</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IO-Link control</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Integrated query and valve technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Wedge hook mechanism**  
   - High forces and moments capacity  
   - Synchronized gripper jaw movement

2. **Gripper jaw**  
   - Gripper fingers mounted using removable centring sleeves  
   - Lubricated for life via incorporated lubrication slots

3. **Steel Linear Guide**  
   - Steel in steel guide  
   - Enables use of extremely long gripper fingers

4. **Dual lip seal**  
   - IP64  
   - Prevents grease from being squeezed out, increasing service life

5. **Integrated gripping force safety device**  
   - Spring built into cylinder chamber as an energy store

6. **Mounting and positioning**  
   - Alternatively, on several sides for customized mounting

7. **Position sensing**  
   - Integrated Hall sensor

8. **Integrated valve technology**  
   - Activation of the gripper by means of a compressed air supply

9. **Integrated control module**  
   - Single-cable solution via IO-Link  
   - Pressure, temperature, position and other parameters are readable

**TERMS**

- **Gripping force:** arithmetic sum of the individual forces occurring at the jaws  
- **Closing/opening time:** Time required for the gripper jaws to travel the entire stroke distance  
- **Repeatability:** at end stops after 50/100 consecutive cycles  
- **Cycle:** Path that the pistons travel for a complete opening and closing movement  
- **Maintenance:** recommended at 30 mil. cycles (please see the installation instructions, download from www.zimmer-group.com)