Handling technology 1

Grippers
Rotary grippers
Swivel and rotary modules
Linear modules
Cutting tongs
Separators
Ball joints
Sensors and holders
Valves, fittings, accessories

THE KNOW-HOW FACTORY
“WE ARE PLEASED TO BE TAKING A MAJOR STEP INTO THE FUTURE WITH ZIMMER GROUP. THE UMBRELLA BRAND ZIMMER GROUP SYMBOLIZES OUTWARDLY WHAT WE HAVE ALREADY INTERNALIZED – THE UNITY OF PREVIOUSLY SEPARATE COMPANIES.

AS ZIMMER GROUP, OUR FAMILY-RUN ENTERPRISE CAN DELIVER EVEN GREATER VALUE AND SUPPORT FOR OUR CUSTOMERS. NOW AND IN THE FUTURE. CONTINUING OUR INTERNATIONALIZATION, ENGAGING WITH ALL INDUSTRIES, AND SOLVING ALL TYPES OF DEVELOPMENT TASKS ARE SOME OF THE CHALLENGES THAT WE WILL OVERCOME AS THE KNOW-HOW FACTORY.”

GÜNTER ZIMMER, MARTIN ZIMMER AND ACHIM GAUSS
Managing Directors, from left to right
WE HAVE SUCCEEDED FOR YEARS BY OFFERING OUR CUSTOMERS INNOVATIVE AND INDIVIDUALIZED SOLUTIONS. ZIMMER HAS GROWN CONTINUOUSLY AND TODAY WE HAVE REACHED A NEW MILESTONE: THE ESTABLISHMENT OF THE KNOW-HOW FACTORY. IS THERE A SECRET TO OUR SUCCESS?

**Foundation.** Excellent products and services have always been the foundation of our company’s growth. Zimmer is a source of ingenious solutions and important technical innovations. This is why customers with high expectations for technology frequently find their way to us. When things get tricky, Zimmer Group is in its best form.

**Style.** We have an interdisciplinary approach to everything we do, resulting in refined process solutions in six areas of technology. This applies not just to development but to production as well. Zimmer Group serves all industries and stands ready to resolve even unique and highly individualized problems. Worldwide.

**Motivation.** Customer orientation is perhaps the most important factor of our success. We are a service provider in the complete sense of the word. Even our decision to identify ourselves as Zimmer Group reflects this reality. With Zimmer Group, our customers now have a single, centralized contact for all of their needs. We approach each customer’s situation with a high level of competence and a broad range of possible solutions.
HANDLING TECHNOLOGY

WITH MORE THAN 30 YEARS OF EXPERIENCE AND INDUSTRY KNOWLEDGE, OUR PNEUMATIC, HYDRAULIC AND ELECTRICAL HANDLING COMPONENTS AND SYSTEMS ARE GLOBAL LEADERS.

Components. More than 2000 standardized gripper systems, positioning systems, robotools and much more. We offer a complete selection of technologically superior products that are ready for rapid delivery.

Semistandard. Our modular approach to design enables custom configurations and high rates of innovation for process automation.

Systems. We are particularly strong in providing custom system solutions for handling technologies, robotics and vacuum engineering.

DAMPING TECHNOLOGY

INDUSTRIAL DAMPING TECHNOLOGY AND SOFT CLOSE PRODUCTS EXEMPLIFY THE INNOVATION AND PIONEERING SPIRIT OF THE KNOW-HOW FACTORY.

Industrial damping technology. Whether standard or customized solutions, our products stand for the highest cycle rates and maximum energy absorption with minimal space requirements.

Soft Close. Development and mass production of pneumatic and fluid dampers with extraordinary quality and rapid delivery.

OEM und direct. Whether they need components, returning mechanisms or complete production lines – we are the trusted partner of many prestigious customers.

LINEAR TECHNOLOGY

WE DEVELOP LINEAR COMPONENTS AND SYSTEMS THAT ARE INDIVIDUALLY ADAPTED TO OUR CUSTOMERS’ NEEDS.

Clamping and braking elements. We offer more than 4000 types for profiled and rounded rails as well as for a variety of guide systems from all manufacturers. It makes no difference whether you prefer manual, automatic, electric or hydraulic drive.

Individualized systems. The unique functionality and precision of our clamping and braking elements open up numerous possibilities for custom applications such as active or semi-active braking and damping.

www.zimmer-group.com
MAXIMUM EFFICIENCY IS ESSENTIAL FOR SYSTEMS AND COMPONENTS USED IN PROCESS TECHNOLOGY. HIGH-LEVEL CUSTOM SOLUTIONS ARE OUR TRADEMARK.

A rich reservoir of experience. Our know-how ranges from the development of materials, processes and tools through product design to production of series products. Challenge us!

Deep production capabilities. The Zimmer Group pairs these capabilities with flexibility, quality and precision, even when making custom products.

Series production. We manufacture demanding products out of metal (MIM), elastomers and plastics with flexibility and speed.

ZIMMER GROUP DEVELOPS INNOVATIVE METAL, WOOD AND COMPOSITE MATERIAL PROCESSING TOOL SYSTEMS FOR ALL INDUSTRIES. NUMEROUS CUSTOMERS CHOOSE US AS THEIR SYSTEMS AND INNOVATION PARTNER.

Knowledge and experience. Industry knowledge and a decades-long development partnership for exchangeable assemblies, tool interfaces and tool systems predestine us for new challenges around the world.

Components. We deliver numerous standard components from stock and develop innovative, customized systems for OEM and end users – far beyond just the metal and wood processing industries.

Variety. Whether you have machining centres, lathes, or flexible production cells, the power tools, holders, assemblies and drilling heads of Zimmer Group are ready for action.

AS A DRIVING FORCE IN OUR INDUSTRY, WE DELIVER HIGH-VALUE SOLUTIONS IN THE FIELD OF MECHANICAL ENGINEERING, FULLY ACCORDING TO THE NEEDS OF OUR CUSTOMERS.

Development partner. We accompany you from brainstorming to inspection of the final machine, always according to your expectations.

Components. We deliver series products and modules, five-axis heads, motor spindles, gearbox swivelling heads, add-on assemblies and motors.

Systems. The Know-how Factory stands for solutions in the fields of mechanical engineering systems, specialty solutions, custom assemblies and mechanical modules. We manufacture and configure multiple-spindle and large-angles as well as large boring heads.

www.zimmer-group.com
OUR APPLICATION PROFILES
ADAPTED TO YOUR REQUIREMENTS

FIND THE BEST SELECTION QUICKLY: ZIMMER APPLICATION PROFILES

HOW DO I FIND THE RIGHT GRIPPER FOR MY NEEDS?
All gripper users ask themselves this question at some point. Surely, at some point you too have looked for a suitable gripper, but were perplexed by the sheer number of options.

FIND THE GRIPPER THAT IS AN EXACT FIT.
With the introduction of Application Profiles, the Zimmer Group now makes it fast and easy to find the gripper that is an exact fit from our extensive product portfolio. We have grouped the Application Profiles (AP for short) into multiple categories according to application-specific features. This easy-to-use system enables the user to efficiently find exactly the product needed for his or her tasks.

ADVANTAGES FOR OUR CUSTOMERS.
In addition to the faster search, the greatest benefit for the customer is in the fact that only those components are used that are actually needed to fulfill the task. This saves money, increases value creation in production and makes machines and systems more competitive.

YOU CAN’T GO WRONG HERE: AP CLASS 5
Many users find it valuable for the gripper components installed to be universally usable. They are looking for a gripper that can not only master all handling tasks, but also reduces stockkeeping costs, parts list depth and restocking effort to a minimum. For these users, in our Application Profiles of Class 5 (AP5), we have created a platform that includes all of our genuine all-around talents. These include universally usable grippers that are equally well suited to all tasks and can be used even under harsh environmental conditions – premium grippers with a wide range of outstanding features, excellent performance data and a universal range of applications. The new 5000 series of premium grippers demonstrate what today’s technology can deliver. Our V-ways made of stainless steel, an extremely hard DLC coating, the double seal of the guides, high precision and complete interchangeability of the pneumatic and electric versions mean that these grippers offer a level of performance previously unavailable on the market.
The grippers have an IP67 protection class and boast a full 30 million maintenance-free cycles. This maintenance-free performance is made possible by a grease reservoir in the gripper jaw. A similar reservoir has proven its value for decades in the AP class 3, but in Class 5, it has been improved by the combination of DLC coating and a double lip seal. This is virtually equivalent to a lifetime lubrication that enables an extremely high number of cycles.

However, the premium AP5 class offers you other advantages that makes them future-proof and indispensable. For example, with its platform strategy and the ability to change between pneumatic and electric drives, it reduces the system costs and design effort of tomorrow. Only the AP5 offers pneumatic and electrical grippers with nearly identical performance data. The electric grippers, equipped with a brushless motor, offer significantly more performance compared to the pneumatic version. In addition to the integrated control system, the likewise integrated sensors for 3-position sensing and the single-cable solution, these grippers will, in the future, also offer an IO-Link interface that makes configuring and implementing the gripper amazingly easy. Therefore, if you need outstanding performance and future-proof quality, Class AP5 is the best choice. It is the best tool to equip users for the path towards the single-energy machine 4.0, even if they are currently still using pneumatics and don’t plan to switch over to electric components until sometime in the future.
# HANDLING TECHNOLOGY 1
## OVERVIEW OF SERIES

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www.zimmer-group.com — Data, Drawings, 3-D Models, Operating Instructions
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Data, Drawings, 3-D Models, Operating Instructions ▼ www.zimmer-group.com
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| **3-jaw concentric gripper with long stroke, pneumatic** | **Page 346** | **GD500 series** | 1300-2480  
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</tr>
<tr>
<td>30 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 million</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data, Drawings, 3-D Models, Operating Instructions  ➔  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
OVERVIEW OF SERIES
PNEUMATIC

Series MGP800 14
Series GP 32
Series GP400 46
Series GP200 66
Series GPP5000 76
Series GP400X 114
Series GP100 115
Series GP1800 116
Series GP1200 117
2-JAW PARALLEL GRIPPERS
SERIES MGP800

PRODUCT ADVANTAGES

“The powerful”

- Over 40% more powerful than the benchmark
  Optimisation of weight and force reduces your application costs since all components can have a smaller scale
- Gripper jaws up to 50% longer than the benchmark
  The highest force and torque measurement enables flexible use for maximum dynamics
- Failure-free continuous operation
  Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGP803N</th>
</tr>
</thead>
<tbody>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
</tr>
</tbody>
</table>
**SERIES CHARACTERISTICS**

- **Number of installation sizes**: 8
- **Stroke per jaw**: 1 mm - 12 mm
- **Gripping force**: 8 N - 400 N
- **Weight**: 0.008 kg - 0.46 kg
- **AP class**: 2

- **10 million maintenance-free cycles (max.)**
- **Spring closing C**
- **IP40**

**SERIES IN DETAIL**

1. **Robust, lightweight housing**
   - Hard coated aluminium alloy
2. **Gripper jaw**
   - Individual gripper finger mounting
3. **Position sensing**
   - Permanent magnet for direct monitoring of piston movement
4. **Integrated gripping force safety device**
   - Spring integrated into cylinder as energy storage (from size 803 upwards)
5. **Removable centering sleeves**
   - Quick and economical positioning of the gripper fingers
6. **Mounting and positioning**
   - Mounting possible from several sides for versatile positioning
7. **Energy supply**
   - Possible from several sides
8. **Sensing slot**
   - Mounting and positioning of magnetic field sensors

**Magnetic field sensor**

---

For more data, drawings, 3-D models, and operating instructions, visit [www.zimmer-group.com](http://www.zimmer-group.com).
**2-JAW PARALLEL GRIPPERS**

**INSTALLATION SIZE MGP801**

---

**PRODUCT SPECIFICATIONS**

**Gripping force diagram**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Colored area: increased wear and tear to be expected</td>
<td></td>
</tr>
</tbody>
</table>

**Forces and moments**

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

- Mr [Nm] 1
- Mx [Nm] 2
- My [Nm] 1
- Fa [N] 54

---

**INCLUDED IN DELIVERY**

- Centering Disc
  - DST80100

---

**RECOMMENDED ACCESSORIES**

- Angled Fittings - Barb Style Connection
  - WVM3

- Straight Fittings - Barb Style Connection
  - GVM3
### Technical Data*  

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order no. MGP801N</td>
<td></td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>1</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.01</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td></td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.025</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.09</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.008</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE MGP802

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>3</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>2</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>90</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc

DST80200

RECOMMENDED ACCESSORIES

Angled Fittings - Barb Style Connection

WVM3

Straight Fittings - Barb Style Connection

GVM3

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MGP602N</th>
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<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>2</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>16</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>19</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.01</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td></td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.025</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.26</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.016</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Diagram:**

- **N:**
  - 1: 2x M3 x 3.5
  - 2: 2x M1.6

---

**Legend:**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Adapter
5. Gripper
6. Air connection (close)
7. Air connection (open)
8. Air connection, alternative (close)
9. Air connection, alternative (open)

---

**Installation size MGP602 / 2-Jaw Parallel Grippers / pneumatic / Grippers**

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
PRODUCT SPECIFICATIONS

Gripping force diagram

Forces and moments

- Fa [N]: 140
- My [Nm]: 2
- Mx [Nm]: 5
- Mr [Nm]: 2

INCLUDED IN DELIVERY

Centering Disc

DST80320

RECOMMENDED ACCESSORIES

Magnetic field sensor
- Angled Cable 0.3 m - Connector M8
- MFS103SKHC

Magnetic field sensor
- Straight Cable 0.3 m - Connector M8
- MFS204SKHC

2-Position-Sensor Cable
- 0.3 m - Connector M8
- MFSP2SKHC

Angled Fittings - Barb Style Connection
- WVM3

Straight Fittings - Barb Style Connection
- GVM3
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>MGP803N</th>
<th>MGP803NC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stroke per jaw [mm]</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Gripping force in closing [N]</strong></td>
<td>35</td>
<td>55</td>
</tr>
<tr>
<td><strong>Gripping force in opening [N]</strong></td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td><strong>Gripping force secured by spring min. [N]</strong></td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Closing time [s]</strong></td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td><strong>Opening time [s]</strong></td>
<td></td>
<td>0.025</td>
</tr>
<tr>
<td><strong>Repetition accuracy +/- [mm]</strong></td>
<td>0.025</td>
<td>0.025</td>
</tr>
<tr>
<td><strong>Operating pressure min. [bar]</strong></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Operating pressure max. [bar]</strong></td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Operating temperature min. [°C]</strong></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Operating temperature max. [°C]</strong></td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td><strong>Air volume per cycle [cm³]</strong></td>
<td>0.8</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Weight [kg]</strong></td>
<td>0.025</td>
<td>0.035</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Order no.**

- MGP803N
- MGP803NC

---

**Hoseless air feed-through**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Integrated slot for magnetic field sensor
5. Adapter
6. Gripper

**Installation size MGP803**

2-Jaw Parallel Grippers / pneumatic / Grippers

[Data, Drawings, 3-D Models, Operating Instructions](www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE MGP804

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] 230
My [Nm] 3
Mr [Nm] 7
Mx [Nm] 3

INCLUDED IN DELIVERY

CENTERING DISC
DST40400

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable 0.3 m - Connector M8
MFSP2SKHC

Angled Fittings - Barb Style Connection
WVM3

Straight Fittings - Barb Style Connection
GVM3
### Technical Data*  

<table>
<thead>
<tr>
<th></th>
<th>MGP804N</th>
<th>MGP804NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order no.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.025</td>
<td>0.025</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.05</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram](image-url)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE MGP806

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] 4
Mx [Nm] 14
My [Nm] 5
Fa [N] 330

INCLUDED IN DELIVERY

Centering Disc
DST40400

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable
0.3 m - Connector M8
MFS2P2SKHC

Angled Fittings - Barb
Style Connection
WVM3

Straight Fittings - Barb
Style Connection
GVM3

www.zimmer-group.com Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGP806N</th>
<th>MGP806NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>100</td>
<td>140</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>120</td>
<td>40</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.025</td>
<td>0.025</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>4.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.1</td>
<td>0.11</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

**Technical Data***

- **Hoseless air feed-through**
- **Gripper attachment**
- **Energy supply**
- **Fixing for gripper finger**
- **Integrated slot for magnetic field sensor**
- **Adapter**
- **Gripper**
- **Air connection (close)**
- **Air connection (open)**
- **Air connection, alternative (close)**
- **Air connection, alternative (open)**

---

**Installation size MGP806 / 2-Jaw Parallel Grippers / pneumatic / Grippers**

---

Data, Drawings, 3-D Models, Operating Instructions [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE MGP808

**PRODUCT SPECIFICATIONS**

- **Gripping force diagram**
  - Displays static forces and moments that can also have an effect, besides the gripping force.
  - Gripping force as a function of finger length.
  - Colored area: increased wear and tear to be expected.

- **Forces and moments**
  - Mr [Nm] 6
  - Mx [Nm] 21
  - My [Nm] 7
  - Fa [N] 450

**INCLUDED IN DELIVERY**

- Centering Disc
  - DST40600

**RECOMMENDED ACCESSORIES**

- Magnetic field sensor
  - Angled Cable 0.3 m - Connector M8
  - MFS103SKHC
- Magnetic field sensor
  - Straight Cable 0.3 m - Connector M8
  - MFS204SKHC
- 2-Position-Sensor Cable
  - 0.3 m - Connector M8
  - MFSP2SKHC
- Straight Fittings - Quick Connect Style
  - GVM5
**Technical Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MGP808N</th>
<th>MGP808NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>170</td>
<td>220</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>190</td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.04</td>
<td>0.06</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>8.4</td>
<td>11.3</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.16</td>
<td>0.18</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

**Order no.**

- Stroke per jaw [mm]: 8
- Gripping force in closing [N]: 170
- Gripping force in opening [N]: 190
- Gripping force secured by spring min. [N]: 0.04
- Closing time [s]: 0.04
- Opening time [s]: 0.02
- Repetition accuracy +/- [mm]: 0.02
- Operating pressure min. [bar]: 3
- Operating pressure max. [bar]: 8
- Operating temperature min. [°C]: 5
- Operating temperature max. [°C]: 80
- Air volume per cycle [cm³]: 8.4
- Weight [kg]: 0.16
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE MGP810

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] 9
Mx [Nm] 32
My [Nm] 12
Fa [N] 590

INCLUDED IN DELIVERY

Centering Disc
DST07540

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angular Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable
0.3 m - Connector M8
MFSP2SKHC

Straight Fittings - Quick Connect Style
GVM5

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
Order no. | MGP810N | MGP810NC
--- | --- | ---
Stroke per jaw [mm] | 10 | 10
Gripping force in closing [N] | 270 | 350
Gripping force in opening [N] | 310 | 80
Gripping force secured by spring min. [N] | 0.04 | 0.04
Closing time [s] | 0.04 | 0.06
Opening time [s] | 0.02 | 0.02
Repetition accuracy +/- [mm] | 10 | 10
Operating pressure min. [bar] | 3 | 4
Operating pressure max. [bar] | 8 | 8
Operating temperature min. [°C] | 5 | 5
Operating temperature max. [°C] | 80 | 80
Air volume per cycle [cm³] | 15.2 | 20.5
Weight [kg] | 0.28 | 0.32

*All data measured at 6 bar

---

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

Hoseless air feed-through

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE MGP812

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]  | 790 |
| Mx [Nm] | 42  |
| My [Nm] | 16  |
| Mr [Nm] | 11  |

INCLUDED IN DELIVERY

Centering Disc
DST07540

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angular Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable
0.3 m - Connector M8
MFSP2SKHC

Straight Fittings - Quick Connect Style
GVM5
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>MGP812N</th>
<th>MGP812NC</th>
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<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>320</td>
<td>400</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>350</td>
<td>80</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>22.3</td>
<td>26.1</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.41</td>
<td>0.46</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Hoseless air feed-through

- **NC**: 2-Jaw Parallel Grippers / pneumatic / Grippers
- **Installation size**: MGP812
- **Data, Drawings, 3-D Models, Operating Instructions**: www.zimmer-group.com

---

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Integrated slot for magnetic field sensor
5. Adapter
6. Gripper
7. Air connection (close)
8. Air connection (open)
9. Air connection, alternative (close)
10. Air connection, alternative (open)
2-JAW PARALLEL GRIPPERS
SERIES GP

PRODUCT ADVANTAGES

“The enduring”

➤ Proven technology
We have more than 20 years of proven reliability, which ensures uninterrupted production for you

➤ Very short cycle times
Low-friction circular guides enable very short cycle times and, therefore, high component output for your machine

➤ Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP45</th>
<th>-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Without integrated spring</td>
<td>-99</td>
<td></td>
</tr>
</tbody>
</table>
1 Wedge hook mechanism
- synchronized the movement of the gripper jaws
- high force transfer

2 Cover plate
- to protect the guide and mechanics (from GP45)

3 Adjustable switch cam
- for position sensing

4 Gripper jaw
- individual gripper finger mounting

5 Roller slide
- for low wear movement sequence

6 Mounting block
- mounting for inductive proximity switch

7 Drive
- double-acting pneumatic cylinder

8 Mounting and positioning
- mounting possible from several sides for versatile positioning

SERIES CHARACTERISTICS

- Number of installation sizes: 6
- Stroke per jaw: 3 mm - 13 mm
- Gripping force: 8.4 N - 5250 N
- Weight: 0.033 kg - 1.4 kg
- AP class: 2

10 million maintenance-free cycles (max.)

Spring closing C

Inductive sensor
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP12

PRODUCT SPECIFICATIONS

Gripping force diagram

| Gripping force as a function of finger length. |

<table>
<thead>
<tr>
<th>[N]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

Colored area: increased wear and tear to be expected.

Forces and moments

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

- Mr [Nm]: 0.15
- Mx [Nm]: 0.15
- My [Nm]: 0.15
- Fa [N]: 15

RECOMMENDED ACCESSORIES

- Angled Fittings - Barb Style Connection WVM3
- Straight Fittings - Barb Style Connection GVM3
- Centering Disc ZE10H7X6
- Mounting block KB3M
- Inductive Proximity Switch - Cable 5 m NJ3-E2
- Inductive Proximity Switch Cable 3 m - Connector M8 NJ3-E2SK
- Plug-in connector Angled Cable 5 m - Socket M8 (female) KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female) KAG500
- Universal Jaw Aluminium UB12
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP12-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>3</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>8.4</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>4</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.02</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.4</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.033</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP19

PRODUCT SPECIFICATIONS

Gripping force diagram

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

\[
\begin{align*}
Mr & [\text{Nm}] & 0.8 \\
Mx & [\text{Nm}] & 0.8 \\
My & [\text{Nm}] & 0.8 \\
Fa & [\text{N}] & 40
\end{align*}
\]

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  - GVM5

- Centering Disc
  - ZE12H7X4

- Mounting block
  - KB3

- Inductive proximity switch - Cable 5 m
  - NJ3-E2

- Inductive Proximity Switch Cable 0.3 m - Connector M8
  - NJ3-E2SK

- Plug-in connector Angled Cable 5m - Socket M8 (female)
  - KAW500

- Plug-in connector Straight Cable 5m - Socket M8 (female)
  - KAG500

- Universal Jaw Aluminium
  - UB19

www.zimmer-group.com / Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th><strong>Order no.</strong></th>
<th><strong>Technical Data</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GP19-B</strong></td>
<td></td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>4</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>36</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>26</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.02</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td></td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.081</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

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2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP30

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>2</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>2</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>2</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>80</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVMS

Centering Disc
ZE15HTX4

Mounting block
KB5

Inductive proximity switch
- Cable 5 m
NJ5-E2

Inductive Proximity Switch Cable 0.3 m - Connector M8
NJ5-E2SK

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Universal Jaw Aluminium
UB30
**Technical Data**

<table>
<thead>
<tr>
<th>Metric (mm)</th>
<th>GP30-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw</td>
<td>5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>94</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>76</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.02</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>3</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.15</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP45

PRODUCT SPECIFICATIONS

Gripping force diagram

- Gripping force as a function of finger length.
- Colored area: increased wear and tear to be expected.

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [N(\text{m})]</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [N(\text{m})]</td>
<td>4</td>
</tr>
<tr>
<td>My [N(\text{m})]</td>
<td>4</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>160</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  - GVM5

- Centering Disc
  - ZE20HTX4

- Mounting block
  - KB6.5

- Inductive proximity switch
  - Cable 5 m
  - Connector M8
  - NJ6.5-E2-01
  - NJ6.5-E2S

- Plug-in connector Angled Cable 5 m: Socket M8 (female)
  - KAWS000

- Plug-in connector Straight Cable 5 m: Socket M8 (female)
  - KAGSO00

- Universal Jaw Aluminium
  - UB45

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Stroke per jaw [mm]</th>
<th>GP45-B</th>
<th>GP45S-B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Gripping force in closing [N]</td>
<td>118</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>Gripping force in opening [N]</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gripping force secured by spring min. [N]</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Closing time [s]</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Opening time [s]</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Air volume per cycle [cm³]</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Weight [kg]</td>
<td>0.255</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP75

PRODUCT SPECIFICATIONS

Gripping force diagram

 Forces and moments
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>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mx [Nm]</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>My [Nm]</td>
<td>5</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>180</td>
<td></td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block KB8K

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style GV1-8X6
- Centering Disc ZE20H7X4
- Inductive proximity switch - Cable 5 m NJ8-E2
- Inductive proximity switch - Connector M8 NJ8-E2S
- Plug-in connector Angled Cable 5 m - Socket M8 (female) KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female) KAG500
- Universal Jaw Aluminium UB75
Technical Data*

<table>
<thead>
<tr>
<th>Requirement</th>
<th>GP75-B</th>
<th>GP75S-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>220</td>
<td>275</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.45</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP100

► PRODUCT SPECIFICATIONS

Gripping force diagram

| GP100S-B | 2500 | 4500 |
| GP100-B/B1 | 1500 | 3500 |
| GP100-B/B9 | 36 | 54 |

Forces and moments

Colored area: increased wear and tear to be expected

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

| Mr [Nm] | 10 |
| My [Nm] | 10 |
| Fa [N] | 400 |

► INCLUDED IN DELIVERY

Mounting block
KB8K

► RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  - GV1-8X6
- Centering Disc
  - ZE30H7X4
- Inductive proximity switch - Cable 5 m
  - NJ8-E2
- Inductive proximity switch - Connector M8
  - NJ8-E2S
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  - KA9500
- Plug-in connector Straight Cable 5m - Socket M8 (female)
  - KAG500
- Universal Jaw Aluminium
  - UB100
## Order no.

<table>
<thead>
<tr>
<th></th>
<th>GP100-B</th>
<th>GP100-B-99</th>
<th>GP100S-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>13</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>450</td>
<td>450</td>
<td>5250</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>70</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.05</td>
<td>0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.05</td>
<td>0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

### Technical Data

1. **Gripper attachment**
2. **Energy supply**
3. **Fixing for gripper finger**
4. **Fixing for mounting block**
5. **Air connection (close)**
6. **Air connection (open)**
7. **Air connection, alternative (close)**
8. **Air connection, alternative (open)**

---

### Diagram

The diagram shows the installation size GP100 / 2-Jaw Parallel Grippers / pneumatic / Grippers with data, drawings, 3-D models, and operating instructions available at www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
SERIES GP400

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 love the challenge!
  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
  Find the best product for your specific use:
  www.zimmer-group.com

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP410</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long stroke</td>
<td>N</td>
</tr>
<tr>
<td>High force</td>
<td>S</td>
</tr>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
</tr>
<tr>
<td>For internal gripping, self-locking, spring opening</td>
<td>O</td>
</tr>
</tbody>
</table>

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
BENEFITS IN DETAIL

1. Robust, lightweight housing
   - Hard coated aluminium alloy
2. Mounting and positioning
   - Mounting possible from several sides for versatile positioning
3. Energy supply
   - Possible from several sides
4. Gripper jaw
   - Individual gripper finger mounting
5. Sensing slot
   - Mounting and positioning of magnetic field sensors
6. Wedge hook mechanism
   - Synchronized movement of the gripper jaws
7. Integrated gripping force safety device
   - Spring integrated into cylinder as energy storage
8. Position sensing
   - Permanent magnet for direct monitoring of piston movement
9. Mounting block
   - Mounting for inductive proximity switch (10)

SERIES CHARACTERISTICS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>9</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>3 mm - 30 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>85 N - 19275 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.08 kg - 18.9 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Spring closing C
- Spring opening O
- Inductive sensor
- Magnetic field sensor
- Purged air

Data, Drawings, 3-D Models, Operating Instructions → www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP403

PRODUCT SPECIFICATIONS

Gripping force diagram

Coloured area: increased wear and tear to be expected

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>9</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>12</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>500</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB3-03

Centering Disc
DST40400

RECOMMENDED ACCESSORIES

Universal Jaw Aluminium
UB403

Universal Jaw Steel
UB403ST

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

2-Position Sensor Cable 0.3 m - Connector M8
MFSP2SKHC

Straight Fittings - Quick Connect Style
GVM5

Inductive proximity switch - Cable 5 m
NJ3-E2

Inductive Proximity Switch Cable 0.3 m - Connector M8
NJ3-E2SK

Quick Exhaust Valve
DEV04

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP403N-C</th>
<th>GP403NC-C</th>
<th>GP403NO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>85</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>100</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.015</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.015</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1.8</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.08</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Hoseless air feed-through

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)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP404

PRODUCT SPECIFICATIONS

Gripping force diagram

<table>
<thead>
<tr>
<th>Forces and moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displays static forces and moments that can also have an effect, besides the gripping force.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>Mx [N m]</th>
<th>My [N m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB3-08

Centering Disc
DST40400

RECOMMENDED ACCESSORIES

Universal Jaw Aluminium
UB404

Universal Jaw Steel
UB404ST

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

2-Position Sensor Cable 0.3 m - Connector M8
MFSP2SKHC

Straight Fittings - Quick Connect Style
GVM5

Inductive proximity switch - Cable 5 m
NJ3-E2

Inductive Proximity Switch Cable 0.3 m - Connector M8
NJ3-E2SK

Angle flange
WFR01
## Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP404N-C</th>
<th>GP404NC-C</th>
<th>GP404NO-C</th>
<th>GP404S-C</th>
<th>GP404SC-C</th>
<th>GP404SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>170</td>
<td>210</td>
<td>375</td>
<td>465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>185</td>
<td>225</td>
<td>410</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.02</td>
<td>0.15</td>
<td>0.025</td>
<td>0.02</td>
<td>0.15</td>
<td>0.025</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>40</td>
<td>40</td>
<td>90</td>
<td>90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.025</td>
<td>0.015</td>
<td>0.02</td>
<td>0.025</td>
<td>0.015</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</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>4.1</td>
<td>6.9</td>
<td>6.9</td>
<td>4.1</td>
<td>6.9</td>
<td>6.9</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.14</td>
<td>0.16</td>
<td>0.16</td>
<td>0.14</td>
<td>0.16</td>
<td>0.16</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

Technical Data:

- NC / NO / SC / SO
- Hoseless air feed-through

---

Data, Drawings, 3-D Models, Operating Instructions  [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP406

PRODUCT SPECIFICATIONS

Gripping force diagram

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

| Mr [N.m] | 35 |
| My [N.m] | 50 |
| Fa [N]   | 1200 |

INCLUDED IN DELIVERY

Mounting block
KB8K

Centering Disc
DST40600

RECOMMENDED ACCESSORIES

Universal Jaw Aluminium
UB406

Universal Jaw Steel
UB406ST

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Magnetic field sensor Angled Cable 0,3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 0,3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable 0,3 m - Connector M8
MFSP2SKHC

Straight Fittings - Quick Connect Style
GVM5

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

www.zimmer-group.com
Technical Data*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>300</td>
<td>400</td>
<td>670</td>
<td>900</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>325</td>
<td>425</td>
<td>725</td>
<td>950</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>100</td>
<td>100</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.03</td>
<td>0.025</td>
<td>0.04</td>
<td>0.03</td>
<td>0.025</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.03</td>
<td>0.04</td>
<td>0.025</td>
<td>0.03</td>
<td>0.04</td>
<td>0.025</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</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>10.1</td>
<td>15.5</td>
<td>15.5</td>
<td>10.1</td>
<td>15.5</td>
<td>15.5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.27</td>
<td>0.32</td>
<td>0.32</td>
<td>0.27</td>
<td>0.32</td>
<td>0.32</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
- **A**: Air connection (close)
- **B**: Air connection (open)
- **A’**: Air connection, alternative (close)
- **B’**: Air connection, alternative (open)

Installation size GP406 / 2-Jaw Parallel Grippers / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ➤  [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP408

PRODUCT SPECIFICATIONS

Gripping force diagram

Colored area: increased wear and tear to be expected

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>80</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>60</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>1800</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block: KB8K
- Centering Disc: BDST40800

RECOMMENDED ACCESSORIES

- Universal Jaw Aluminium: UB408
- Universal Jaw Steel: UB408ST
- Plug-in connector Angled Cable 5m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female): KAG500
- Magnetic field sensor Angled Cable 0.3 m - Connector M8: MFS103SKHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8: MFS204SKHC
- 2-Position-Sensor Cable 0.3 m - Connector M8: MFSP2SKHC
- Straight Fittings - Quick Connect Style: GVM5
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S

www.zimmer-group.com

Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP408N-C</th>
<th>GP408NC-C</th>
<th>GP408NO-C</th>
<th>GP408S-C</th>
<th>GP408SC-C</th>
<th>GP408SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>550</td>
<td>700</td>
<td>1230</td>
<td>1570</td>
<td>1660</td>
<td>1660</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>590</td>
<td>740</td>
<td>1320</td>
<td>1660</td>
<td>1660</td>
<td>1660</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.04</td>
<td>0.03</td>
<td>0.05</td>
<td>0.04</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.04</td>
<td>0.05</td>
<td>0.03</td>
<td>0.04</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>23.6</td>
<td>35.5</td>
<td>35.5</td>
<td>23.6</td>
<td>35.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>0.5</td>
<td>0.57</td>
<td>0.57</td>
<td>0.5</td>
<td>0.57</td>
<td>0.57</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>23.6</td>
<td>35.5</td>
<td>35.5</td>
<td>23.6</td>
<td>35.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>550</td>
<td>700</td>
<td>1230</td>
<td>1570</td>
<td>1660</td>
<td>1660</td>
</tr>
</tbody>
</table>
| *All data measured at 6 bar*

---

* Technical data

**Installation size GP408**
- **NC**, **NO**, **SC**, **SO**

**Order no.**

- **GP408N-C**: 2-Jaw Parallel Grippers / pneumatic / Grippers
- **Data, Drawings, 3-D Models, Operating Instructions**: www.zimmer-group.com

---

**Hoseless air feed-through**

**N / S**
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP410

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>100</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>90</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>2500</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block
  - KB8K
- Centering Disc
  - DST41000

RECOMMENDED ACCESSORIES

- Universal Jaw Aluminium
  - UB410
- Universal Jaw Steel
  - UB410ST
- Alternate proximity bracket
  - KHA410-B-8
- Plug in connector Angled Cable 5m - Socket M8 (female)
  - KAW500
- Plug in connector Straight Cable 5m - Socket M8 (female)
  - KAG500
- Magnetic field sensor Angled Cable 0.3 m - Connector M8
  - MFS103KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  - MFS204KHC
- 3-Position-Sensor Cable 0.3 m - Connector M8
  - MFSP2SKHC
- Straight Fittings - Quick Connect Style
  - GV1-8X6
- Inductive proximity switch - Cable 5 m
  - NJ8-E2

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP410N-C</th>
<th>GP410NC-C</th>
<th>GP410NO-C</th>
<th>GP410S-C</th>
<th>GP410SC-C</th>
<th>GP410SO-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>740</td>
<td>990</td>
<td>1650</td>
<td>2215</td>
<td>2340</td>
<td>2340</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>795</td>
<td>1050</td>
<td>1770</td>
<td>2215</td>
<td>2340</td>
<td>2340</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>250</td>
<td>250</td>
<td>570</td>
<td>570</td>
<td>570</td>
<td>570</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.07</td>
<td>0.06</td>
<td>0.09</td>
<td>0.07</td>
<td>0.06</td>
<td>0.09</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.07</td>
<td>0.09</td>
<td>0.06</td>
<td>0.07</td>
<td>0.09</td>
<td>0.06</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</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>39.3</td>
<td>66.7</td>
<td>66.7</td>
<td>39.3</td>
<td>66.7</td>
<td>66.7</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.85</td>
<td>1</td>
<td>1</td>
<td>0.85</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP412

PRODUCT SPECIFICATIONS

Gripping force diagram

Colored area: increased wear and tear to be expected

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>120</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>120</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>3200</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB8K

Centering Disc
DST41000

RECOMMENDED ACCESSORIES

Universal Jaw Aluminium
UB412

Universal Jaw Steel
UB412ST

Alternate proximity bracket
KHA412-B-8

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Magnetic field sensor Angled Cable 0.3m - Connector M8
MFS10SKHC

Magnetic field sensor Straight Cable 0.3m - Connector M8
MFS204SKHC

3-Position Sensor Cable 0.3m - Connector M8
MFSP2SKHC

Inductive proximity switch - Cable 5m
NJ8-E2

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
<tr>
<th></th>
<th>GP412NC</th>
<th>GP412NO-C</th>
<th>GP412S-C</th>
<th>GP412SC-C</th>
<th>GP412SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>12</td>
<td>12</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1290</td>
<td>1780</td>
<td>2890</td>
<td>3960</td>
<td>4130</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1850</td>
<td>3050</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>490</td>
<td>490</td>
<td>1080</td>
<td>1080</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
<td>0.12</td>
<td>0.1</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
<td>0.12</td>
<td>0.1</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</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>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>
</tr>
<tr>
<td>Operating temperature max. [°C]</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>80</td>
<td>148</td>
<td>148</td>
<td>80</td>
<td>148</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.5</td>
<td>1.78</td>
<td>1.78</td>
<td>1.5</td>
<td>1.78</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** Fixing for gripper finger
- **7** Air purge connection option
- **8** Air connection (close)
- **9** Air connection (open)
- **10** Air connection, alternative (close)
- **11** Air connection, alternative (open)

**Hoseless air feed-through**

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**NC / NO / SC / SO**

---

**Order no.**

<table>
<thead>
<tr>
<th></th>
<th>GP412NC</th>
<th>GP412NO-C</th>
<th>GP412S-C</th>
<th>GP412SC-C</th>
<th>GP412SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>12</td>
<td>12</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1290</td>
<td>1780</td>
<td>2890</td>
<td>3960</td>
<td>4130</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1850</td>
<td>3050</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>490</td>
<td>490</td>
<td>1080</td>
<td>1080</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
<td>0.12</td>
<td>0.1</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
<td>0.12</td>
<td>0.1</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</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>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>
</tr>
<tr>
<td>Operating temperature max. [°C]</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>80</td>
<td>148</td>
<td>148</td>
<td>80</td>
<td>148</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.5</td>
<td>1.78</td>
<td>1.78</td>
<td>1.5</td>
<td>1.78</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP416

► PRODUCT SPECIFICATIONS

Gripping force diagram

<table>
<thead>
<tr>
<th>Gripping force as a function finger length.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[N]</td>
</tr>
<tr>
<td>3750</td>
</tr>
<tr>
<td>2500</td>
</tr>
<tr>
<td>1250</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>Colored area: increased wear and tear to be expected</td>
</tr>
</tbody>
</table>

Forces and moments

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

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>Mr [Nm]</th>
<th>Mx [Nm]</th>
<th>My [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>5000</td>
<td>140</td>
<td>160</td>
<td>180</td>
</tr>
</tbody>
</table>

► INCLUDED IN DELIVERY

Mounting block
KB8K

Centering Disc
DST41600

► RECOMMENDED ACCESSORIES

Universal Jaw Aluminium
UB416

Universal Jaw Steel
UB416ST

Alternate proximity bracket
KHA416-B-8

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable 0.3 m - Connector M8
MFSP2SKHC

Straight Fittings - Quick Connect Style
GV1-8X6

Inductive proximity switch - Cable 5 m
NJ8-E2
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP416N-C</th>
<th>GP416NC-C</th>
<th>GP416NO-C</th>
<th>GP416S-C</th>
<th>GP416SC-C</th>
<th>GP416SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1860</td>
<td>2490</td>
<td>4160</td>
<td>5560</td>
<td>5780</td>
<td>5780</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1990</td>
<td>2590</td>
<td>4390</td>
<td>5640</td>
<td>5780</td>
<td>5780</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>630</td>
<td>830</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.2</td>
<td>0.15</td>
<td>0.25</td>
<td>0.2</td>
<td>0.15</td>
<td>0.25</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.2</td>
<td>0.25</td>
<td>0.15</td>
<td>0.2</td>
<td>0.25</td>
<td>0.15</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</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>268</td>
<td>477</td>
<td>477</td>
<td>268</td>
<td>477</td>
<td>477</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.9</td>
<td>3.4</td>
<td>3.4</td>
<td>2.9</td>
<td>3.4</td>
<td>3.4</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP420

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function of finger length.

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>180</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>220</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>7000</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB8K

Centering Disc
DST42000

RECOMMENDED ACCESSORIES

Universal Jaw Aluminium
UB420

Universal Jaw Steel
UB420ST

Alternate proximity bracket
KHA420-B-8

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204KHC

3-Position-Sensor Cable 0.3 m - Connector M8
MFSP2SKHC

Straight Fittings - Quick Connect Style
GV1-4X8

Inductive proximity switch - Cable 5 m
NJ8-E2
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP420N-C</th>
<th>GP420NC-C</th>
<th>GP420NO-C</th>
<th>GP420S-C</th>
<th>GP420SC-C</th>
<th>GP420SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3175</td>
<td>4060</td>
<td>7080</td>
<td>9060</td>
<td>9400</td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>3330</td>
<td>4215</td>
<td>7430</td>
<td>9400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>900</td>
<td>900</td>
<td>1975</td>
<td>1975</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</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>320</td>
<td>590</td>
<td>590</td>
<td>320</td>
<td>590</td>
<td>590</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>5.5</td>
<td>6.7</td>
<td>6.7</td>
<td>5.5</td>
<td>6.7</td>
<td>6.7</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP430

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>9000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>275</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>300</td>
</tr>
<tr>
<td>Mr [Nm]</td>
<td>200</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block
  - KB8K
- Centering Disc
  - DST43000

RECOMMENDED ACCESSORIES

- Universal Jaw Aluminum
  - UB430
- Universal Jaw Steel
  - UB430ST
- Alternate proximity bracket
  - KHA430-B-8
- Plug-in connector Angled Cable 5m - Socket M8 (female)
  - KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female)
  - KAG500
- Magnetic field sensor Angled Cable 0.3 m - Connector M8
  - MFS103SKHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  - MFS204SKHC
- 3-Position-Sensor Cable 0.3 m - Connector M8
  - MFSP2SKHC
- Straight Fittings - Quick Connect Style
  - GV1-4X8
- Inductive proximity switch - Cable 5 m
  - NJ8-E2

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
Order no. | GP430N-C | GP430NC-C | GP430NO-C | GP430S-C | GP430SC-C | GP430SO-C
---|---|---|---|---|---|---
Stroke per jaw (mm) | 30 | 30 | 30 | 15 | 15 | 15
Gripping force in closing [N] | 6675 | 8480 | 14900 | 18930 | | |
Gripping force in opening [N] | 6830 | 8640 | 15250 | 19275 | | |
Gripping force secured by spring min. [N] | 1800 | 1800 | 4030 | 4030 | | |
Closing time [s] | 0.4 | 0.4 | 0.8 | 0.4 | 0.4 | 0.8
Opening time [s] | 0.4 | 0.8 | 0.4 | 0.4 | 0.8 | 0.4
Repetition accuracy +/- [mm] | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04
Operating pressure min. [bar] | 3 | 4 | 4 | 3 | 4 | 4
Operating pressure max. [bar] | 8 | 8 | 8 | 8 | 8 | 8
Operating temperature min. [°C] | 5 | 5 | 5 | 5 | 5 | 5
Operating temperature max. [°C] | 60 | 80 | 80 | 80 | 80 | 80
Air volume per cycle [cm³] | 980 | 1850 | 1850 | 980 | 1850 | 1850
Weight [kg] | 14 | 15.9 | 18.9 | 14 | 18.9 | 18.9

*All data measured at 6 bar
Our products love the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

Find the best product for your specific use:

www.zimmer-group.com

HOW TO ORDER CORRECTLY

The product order numbers are arranged according to this diagram:

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP280</th>
</tr>
</thead>
<tbody>
<tr>
<td>High force</td>
<td>S</td>
</tr>
<tr>
<td>Without integrated spring</td>
<td>-99</td>
</tr>
</tbody>
</table>

“The variable”

- **Smooth stroke configuration**
  An adjusting screw allows you to adjust the stroke to your specific application

- **Proven technology**
  We have more than 20 years of proven reliability, which ensures uninterrupted production for you

- **Dirt protection**
  Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions

THE BEST PRODUCT FOR YOUR APPLICATION

- **Our products love the challenge!**
  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
  Find the best product for your specific use:
  www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Stroke adjustment**
   - infinitely adjustable in “open” movement
   - adjusting screw in delivery

2. **Wedge hook mechanism**
   - synchronized the movement of the gripper jaws
   - high force transfer

3. **Square guide**
   - high forces and moments capacity

4. **Gripper jaw**
   - individual gripper finger mounting

5. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning

6. **Sensing slot**
   - mounting and positioning of magnetic field sensors

7. **Drive**
   - double-acting pneumatic cylinder

8. **Energy supply**
   - possible from several sides

---

**SERIES CHARACTERISTICS**

- **Number of installation sizes**: 4
- **Stroke per jaw**: 6 mm - 40 mm
- **Gripping force**: 160 N - 4500 N
- **Weight**: 0.33 kg - 8.3 kg
- **AP class**: 3

- 10 million maintenance-free cycles (max.)
- Spring closing C
- High-strength S
- Inductive sensor IP 40
- Magnetic field sensor
- Purged air
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP224

► PRODUCT SPECIFICATIONS

Gripping force diagram

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [N·m]</th>
<th>Mx [N·m]</th>
<th>My [N·m]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>15</td>
<td>8</td>
<td>250</td>
</tr>
</tbody>
</table>

► INCLUDED IN DELIVERY

Mounting block

KB8K

► RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Magnetic field sensor
- Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
- Straight Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable
- 0.3 m - Connector M8
MFSP2SKHC

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Centering Disc
ZE15H7X4

Quick Exhaust Valve
DEV04
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GP224-B</th>
<th>GP224-B-99</th>
<th>GP224S-B</th>
<th>GP224S-B-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>12</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>170</td>
<td>160</td>
<td>335</td>
<td>335</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>160</td>
<td>160</td>
<td></td>
<td>335</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>10</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.06</td>
<td>0.04</td>
<td>0.06</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.06</td>
<td>0.04</td>
<td>0.06</td>
<td>0.04</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</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>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.33</td>
<td>0.33</td>
<td>0.33</td>
<td>0.33</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Order no.
- **GP224-B**
- **GP224-B-99**
- **GP224S-B**
- **GP224S-B-99**

### Technical Data*

1. **Gripper attachment**
2. **Energy supply**
3. **Fixing for gripper finger**
4. **Lubrication nipple**
5. **Stroke adjustment screw**
6. **Integrated slot for magnetic field sensor**
7. **Fixing for mounting block**
8. **Air connection (close)**
9. **Air connection (open)**
10. **Air connection, alternative (close)**
11. **Air connection, alternative (open)**
12. **Jaw ventilation port - do not plug**

### Data, Drawings, 3-D Models, Operating Instructions
- www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP240

1 PRODUCT SPECIFICATIONS

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

<table>
<thead>
<tr>
<th>[N]</th>
<th>[mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1250</td>
<td>0</td>
</tr>
<tr>
<td>1000</td>
<td>25</td>
</tr>
<tr>
<td>750</td>
<td>50</td>
</tr>
<tr>
<td>500</td>
<td>75</td>
</tr>
<tr>
<td>250</td>
<td>100</td>
</tr>
<tr>
<td>0</td>
<td>125</td>
</tr>
</tbody>
</table>

Colored area: increased wear and tear to be expected

| Mr [Nm] | 15 |
| My [Nm] | 30 |
| Fa [N]  | 400 |

INCLUDED IN DELIVERY

Mounting block KB8K

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style GVM5
- Magnetic field sensor Angled Cable 0,3 m - Connector MB MFS103SKHC
- Magnetic field sensor Straight Cable 0,3 m - Connector MB MFS2045KHC
- 2-Position-Sensor Cable 0,3 m - Connector MB MFSP2SKHC
- Plug-in connector Angled Cable 5m - Socket MB (female) KAW500
- Plug-in connector Straight Cable 5m - Socket MB (female) KAG500
- Inductive proximity switch Cable 5 m NJ8-E2
- Inductive proximity switch - Connector MB NJ8-E2S
- Centering Disc ZE30H7X4
- Quick Exhaust Valve DEV06
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP240-B</th>
<th>GP240-B-99</th>
<th>GP240S-B</th>
<th>GP240S-B-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>20</td>
<td>20</td>
<td>435</td>
<td>1290</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</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>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>49</td>
<td>49</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Installation size GP240 / 2-Jaw Parallel Grippers / pneumatic / Grippers**

Data, Drawings, 3-D Models, Operating Instructions → www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP260

PRODUCT SPECIFICATIONS

Gripping force diagram

<table>
<thead>
<tr>
<th>Gripping force as a function finger length.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[N] Gripping force vs. finger length</td>
</tr>
<tr>
<td>2500</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>1500</td>
</tr>
<tr>
<td>1000</td>
</tr>
<tr>
<td>500</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>Colored area: increased wear and tear to be expected</td>
</tr>
</tbody>
</table>

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [N·m]</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [N·m]</td>
<td>45</td>
</tr>
<tr>
<td>My [N·m]</td>
<td>25</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>600</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB8K

RECOMMENDED ACCESSORIES

- Straight Fitting - Quick Connect Style
  GV1-8X8
- Magnetic field sensor
  Angled Cable 0.3 m - Connector M8
  MFS103SKHC
- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS204SKHC
- 2-Position-Sensor Cable 0.3 m - Connector M8
  MFSP2SKHC
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAWS00
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500
- Inductive proximity switch - Cable 5 m
  NJ8-E2
- Inductive proximity switch - Connector M8
  NJ8-E2S
- Centering Disc
  ZE40H7X6
- Quick Exhaust Valve
  DEV08

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>30</td>
<td>30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>800</td>
<td>665</td>
<td>2480</td>
<td>2120</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>665</td>
<td>665</td>
<td>2480</td>
<td>2120</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>135</td>
<td>0.1</td>
<td>0.15</td>
<td>0.1</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
<td>0.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</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>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure secured by spring min. [N]</td>
<td>135</td>
<td>360</td>
<td>135</td>
<td>360</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
<td>0.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</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>5</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure secured by spring min. [N]</td>
<td>135</td>
<td>360</td>
<td>135</td>
<td>360</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>115</td>
<td>115</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Installation size GP260 / 2-Jaw Parallel Grippers / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions ➔ [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GP280

► PRODUCT SPECIFICATIONS

Gripping force diagram

![Gripping force diagram](image)

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>75</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>40</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>1000</td>
</tr>
</tbody>
</table>

► INCLUDED IN DELIVERY

Mounting block
KB8-23

► RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GV1-8X8

- Magnetic field sensor
  Angled Cable 0.3 m - Connector M8
  MFS103SKHC

- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS2045KHC

- 2-Position-Sensor Cable
  0.3 m - Connector M8
  MFSP2SKHC

- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500

- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500

- Inductive proximity switch
  Cable 5 m
  NJ8-E2

- Inductive proximity switch
  Connector M8
  NJ8-E2S

- Centering Disc
  ZE45H7X6

- Quick Exhaust Valve
  DEV08

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GP280</th>
<th>GP280-99</th>
<th>GP280S</th>
<th>GP280S-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>40</td>
<td>40</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1690</td>
<td>1390</td>
<td>4500</td>
<td>3690</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1390</td>
<td>1390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>300</td>
<td>0.2</td>
<td>0.25</td>
<td>0.2</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</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>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>8.3</td>
<td>8.3</td>
<td>8.3</td>
<td>8.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Diagram

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Lubrication nipple
5. Stroke adjustment screw
6. Integrated slot for magnetic field sensor
7. Fixing for mounting block

A. Air connection (close)
B. Air connection (open)
C. Air connection, alternative (close)
D. Air connection, alternative (open)
E. Jaw ventilation port - do not plug
2-JAW PARALLEL GRIPPERS
SERIES GPP5000

PRODUCT ADVANTAGES

“The Universal One”

- Up to 30% more gripping force than the benchmark
- 10% more static forces and moments than the benchmark
- Gripper fingers up to 10% longer than the benchmark
- Gripper fingers weight up to 15% higher than the benchmark
- Sealed guide IP64 / Protector version IP67 (with purged air)
- Protected against corrosion
- Up to 30 million cycles without maintenance

THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

The product order numbers are arranged according to this diagram:

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis version</td>
<td>N</td>
</tr>
<tr>
<td>High force</td>
<td>S</td>
</tr>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
</tr>
<tr>
<td>For internal gripping, self-locking, spring opening</td>
<td>O</td>
</tr>
<tr>
<td>Protector version IP67 for use in adverse environments (with purged air)</td>
<td>P</td>
</tr>
<tr>
<td>temperature-resistant version to 130 °C</td>
<td>T</td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Wedge hook mechanism**
   - Supports to absorb high forces and moments
   - Synchronized gripper jaw movement

2. **Gripper jaw**
   - DLC coated to protect against corrosion
   - 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. **Mounting block**
   - Mounting for inductive proximity switch

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

6. **Drive**
   - Double-acting pneumatic rotor cylinder

7. **Mounting and positioning**
   - Alternatively, on several sides for customized mounting
   - Pneumatic and electrical versions identical apart from height

8. **Sensing slot**
   - Mounting and positioning of magnetic field sensors

9. **Dual lip seal**
   - IP64 and up to IP67 (with purged air) for Protector version
   - Prevents grease from being squeezed out, increasing service life

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>9</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>3 mm - 30 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>140 N - 13550 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.08 kg - 12 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>5</td>
</tr>
</tbody>
</table>

- **30 million maintenance-free cycles (max.)**
- **High-strength S**
- **IP67**
- **Temperature-resistant**
- **Spring closing C**
- **Inductive sensor**
- **Corrosion resistance**
- **Purged air**
- **Spring opening O**
- **IP64**
- **Magnetic field sensor**

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
# 2-JAW PARALLEL GRIPPERS
## INSTALLATION SIZE GPP5003

### PRODUCT SPECIFICATIONS

#### Gripping force diagram

Gripping force as a function of finger length.

#### Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>14</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>13</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>550</td>
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</table>

### TECHNICAL DATA

#### Technical Data*

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<th>GPP5003NC</th>
<th>GPP5003NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>140</td>
<td>195</td>
<td>150</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>205</td>
<td>150</td>
<td>205</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.025</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.01</td>
<td>0.025</td>
<td>0.01</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.12</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>65</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2.1</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.08</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

#### Technical Data - Protector Version

<table>
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<tr>
<th>Order no.</th>
<th>GPP5003NP</th>
<th>GPP5003NCP</th>
<th>GPP5003NOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.1</td>
<td>0.12</td>
<td>0.12</td>
</tr>
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</table>

#### Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5003NT</th>
<th>GPP5003NCT</th>
<th>GPP5003NOT</th>
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</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
**with purged air

---

*www.zimmer-group.com* Data, Drawings, 3-D Models, Operating Instructions
**TECHNICAL DRAWINGS**

Installation size GPP5003 / 2-Jaw Parallel Grippers / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ▶  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5003

INCLUDED IN DELIVERY

1. Centering Disc
   DST06510

2. Centering Disc
   015761
RECOMMENDED ACCESSORIES

- Universal jaw aluminium: UB5003AL
- Universal jaw steel: UB5003ST
- Rubber Coated Tape Smooth: KF50G
- Rubber Coated Tape Knobbed: KF50N
- Magnetic field sensor Angled Cable 0.3 m - Connector M8: MFS103SKHC
- 2-Position-Sensor Cable 0.3 m - Connector M8: MFSP2SKHC-01
- Plug-in connector Angled Cable 5m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female): KAG500
- Plug-in connector customisable Straight - Connector M8: S8-G-3
- Plug-in connector customisable Straight - Connector M12: S12-G-3
- Angled Fittings - Barb Style Connection: WVM3
- Straight Fittings - Barb Style Connection: GVM3
- Quick Exhaust Valve: DEVO4
- Pressure Safety Valve: DSV1-8

One universal jaw is required for each gripper jaw.
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5004

PRODUCT SPECIFICATIONS

Gripping force diagram

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

TECHNICAL DATA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GPP5004N</td>
<td>GPP5004NC</td>
<td>GPP5004NO</td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>215</td>
<td>295</td>
<td>470</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.015</td>
<td>0.015</td>
<td>0.025</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.015</td>
<td>0.025</td>
<td>0.015</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>80</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>5</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.16</td>
<td>0.21</td>
<td>0.21</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
** with purged air
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5004

► INCLUDED IN DELIVERY

1. Centering Disc 015761
2. Centering Disc 024230
**RECOMMENDED ACCESSORIES**

1. **Universal jaw aluminium**
   - UB5004AL

2. **Universal jaw steel**
   - UB5004ST

3. **Changeable jaw, loose-part-set**
   - WB5004L

4. **Changeable jaw, fix-part**
   - WB5004F

5. **Magnetic field sensor Angled Cable 0,3 m - Connector M8**
   - MFS103SKHC

6. **Plug-in connector customisable Straight - Connector M8**
   - S8-G-3

7. **Angled Fittings - Quick Connect Style**
   - WVM5

8. **Straight Fittings - Quick Connect Style**
   - GVM5

9. **Quick Exhaust Valve**
   - DEV04

10. **Pressure Safety Valve**
    - DSV1-8

**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.

Data, Drawings, 3-D Models, Operating Instructions  
[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5006

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function of finger length.

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

ORDER NO.
GPP5006N GPP5006NC GPP5006NO GPP5006S GPP5006SC GPP5006SO
Stroke per jaw [mm] 6 6 6 3 3 3
Gripping force in closing [N] 330 455 740 1020
Gripping force in opening [N] 360 485 800 1080
Gripping force secured by spring min. [N] 125 125 280 280
Closing time [s] 0.025 0.015 0.035 0.025 0.015 0.035
Opening time [s] 0.025 0.035 0.015 0.025 0.035 0.015
Weight per jaw max. [kg] 0.4 0.4 0.4 0.4 0.4 0.4
Length of the gripper fingers max. [mm] 100 90 90 90 85 85
Repetition accuracy +/- [mm] 0.01 0.01 0.01 0.01 0.01 0.01
Operating pressure min. [bar] 3 4 4 3 4 4
Operating pressure max. [bar] 8 7 7 6 7 7
Operating temperature [°C] -10...+90 -10...+90 -10...+90 -10...+90 -10...+90 -10...+90
Air volume per cycle [cm³] 11 24 24 11 24 24
Protection to IEC 60529 IP64 IP64 IP64 IP64 IP64 IP64
Weight [kg] 0.28 0.35 0.35 0.28 0.35 0.35

ORDER NO.
GPP5006NP GPP5006NCP GPP5006NOP GPP5006SP GPP5006SCP GPP5006SOP
Protection to IEC 60529 IP67** IP67** IP67** IP67** IP67** IP67**
Weight [kg] 0.37 0.44 0.44 0.37 0.44 0.44

ORDER NO.
GPP5006NT GPP5006NCT GPP5006NOT GPP5006ST GPP5006SCT GPP5006SOT
Operating temperature [°C] -10...+130 -10...+130 -10...+130 -10...+130 -10...+130 -10...+130

*All data measured at 6 bar
** with purged air
TECHNICAL DRAWINGS

NC / NO / SC / SO

Protective version

1 Gripper attachment  2 Gripper
3 Energy supply  4 Clamp for sensor
4 Fixing for gripper finger  5 Switch cam adjustment
6 Integrated slot for magnetic field sensor  6 Air connection (close)
7 Mounting block  8 Air connection (open)
8 Air purge connection option  9 Air connection, alternative (close)
9 Attachment option for customer-specific fittings  10 Air connection, alternative (open)
10 Adapter

Hoseless air feed-through

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5006

► INCLUDED IN DELIVERY

1. Centering Disc 024230
2. Centering Disc 024231
RECOMMENDED ACCESSORIES

Universal jaw aluminium
UB5006AL

Universal jaw steel
UB5006ST

Changeable jaw, loose-part-set
WB5006L

Changeable jaw, fix-part
WB5006F

Magnetic field sensor Angled
Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight
Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable
0.3 m - Connector M8
MFS2SKHC-01

Inductive Proximity Switch
Cable 0.3 m - Connector M8
NJ4-E2SK-01

Plug-in connector Angled Ca-
ble 5m - Socket M6 (female)
KAW500

Plug-in connector Straight Ca-
ble 5m - Socket M6 (female)
KAG500

Angled Fittings - Quick
Connect Style
WVM5

Straight Fittings - Quick
Connect Style
GVM5

Pressure Safety Valve
DSV 1-8

Compensation module
N / S
ZUB5006PNS

Compensation module
NC / NO / SC / SO
ZUB5006PCO

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

Compensation module for compensating for the height differences between the pneumatic and electric gripper version
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5008

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>105</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>65</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>1900</td>
</tr>
</tbody>
</table>

TECHNICAL DATA

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<tr>
<th>Order no.</th>
<th>GPP5008N</th>
<th>GPP5008NC</th>
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<th>GPP5008S</th>
<th>GPP5008SC</th>
<th>GPP5008SO</th>
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<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>520</td>
<td>710</td>
<td>1150</td>
<td>1580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>560</td>
<td>750</td>
<td>1240</td>
<td>1670</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>190</td>
<td>190</td>
<td>430</td>
<td>430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.035</td>
<td>0.025</td>
<td>0.045</td>
<td>0.035</td>
<td>0.025</td>
<td>0.045</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.035</td>
<td>0.045</td>
<td>0.025</td>
<td>0.035</td>
<td>0.045</td>
<td>0.025</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
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<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>125</td>
<td>115</td>
<td>115</td>
<td>115</td>
<td>105</td>
<td>105</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>22</td>
<td>43</td>
<td>43</td>
<td>22</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.53</td>
<td>0.63</td>
<td>0.63</td>
<td>0.53</td>
<td>0.63</td>
<td>0.63</td>
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<th>GPP5008NCP</th>
<th>GPP5008NOP</th>
<th>GPP5008SOP</th>
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<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.66</td>
<td>0.76</td>
<td>0.76</td>
<td>0.66</td>
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<table>
<thead>
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<th>GPP5008NOT</th>
<th>GPP5008ST</th>
<th>GPP5008SCT</th>
<th>GPP5008SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
** with purged air
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5008

INCLUDED IN DELIVERY

Centering Disc
024231
**RECOMMENDED ACCESSORIES**

- **Universal jaw aluminium**
  - UB5008AL

- **Universal jaw steel**
  - UB5008ST

- **Changeable jaw, loose-part-set**
  - WB5008L

- **Changeable jaw, fix-part**
  - WB5008F

- **Magnetic field sensor Straight Cable 0.3 m - Connector M8**
  - MFS204SKHC

- **2-Position-Sensor Cable 0.3 m - Connector M8**
  - MFS25KHC-01

- **Inductive Proximity Switch Cable 0.3 m - Connector M8**
  - NJ4-E25K-01

- **Plug-in connector Angled Cable 5m - Socket M8 (female)**
  - KAW500

- **Plug-in connector Straight Cable 5m - Socket M8 (female)**
  - KAG500

- **Angled Fittings - Quick Connect Style**
  - WVM5

- **Straight Fittings - Quick Connect Style**
  - GVM5

- **Pressure Safety Valve**
  - DSV1-8

- **Compensation module**
  - N / S
  - ZUB5008PNS
  - ZUB5008PCO

**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.

**Compensation module** for compensating for the height differences between the pneumatic and electric gripper version.

---

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5010

PRODUCT SPECIFICATIONS

Gripping force diagram

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

TECHNICAL DATA

Order no.    GPP5010N    GPP5010NC    GPP5010NO    GPP5010S    GPP5010SC    GPP5010SO
Stoke per jaw [mm]    10    10    10    5    5    5
Gripping force in closing [N]    885    1260    1940    2750
Gripping force in opening [N]    945    1320    2080    2890
Gripping force secured by spring min. [N]    375    375    810    810
Closing time [s]    0.06    0.05    0.08    0.06    0.05    0.08
Opening time [s]    0.06    0.08    0.05    0.06    0.08    0.05
Weight per jaw max. [kg]    1.3    1.3    1.3    1.3    1.3    1.3
Length of the gripper fingers max. [mm]    160    145    145    145    130    130
Repetition accuracy +/- [mm]    0.01    0.01    0.01    0.01    0.01    0.01
Operating pressure min. [bar]    3    4    4    3    4    4
Operating pressure max. [bar]    8    7    7    6    7    7
Operating temperature [°C]    -10 ... +90    -10 ... +90    -10 ... +90    -10 ... +90    -10 ... +90    -10 ... +90
Air volume per cycle [cm³]    44    92    92    44    92    92
Protection to IEC 60529    IP64    IP64    IP64    IP64    IP64    IP64
Weight [kg]    0.87    1.09    1.09    0.87    1.09    1.09

Order no.    GPP5010NP    GPP5010NCP    GPP5010NOP    GPP5010SP    GPP5010SCP    GPP5010SOP
Protection to IEC 60529    IP67**    IP67**    IP67**    IP67**    IP67**    IP67**
Weight [kg]    0.99    1.31    1.31    0.99    1.31    1.31

Order no.    GPP5010NT    GPP5010NCT    GPP5010NOT    GPP5010ST    GPP5010SCT    GPP5010SOT
Operating temperature [°C]    -10 ... +130    -10 ... +130    -10 ... +130    -10 ... +130    -10 ... +130    -10 ... +130

*All data measured at 6 bar
** with purged air
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5010

INCLUDED IN DELIVERY

Centering Disc
018187
RECOMMENDED ACCESSORIES

1. Universal jaw aluminium: UB5010AL
2. Universal jaw steel: UB5010ST
3. Changeable jaw, loose-part set: WB5010L
4. Changeable jaw, fixed part: WB5010F
5. Magnetic field sensor Angled Cable 0.3 m - Connector M8: MFS103SKHC
6. Magnetic field sensor Straight Cable 0.3 m - Connector M8: MFS204SKHC
7. 2-position Sensor Cable 0.3 m - Connector M8: MFP25KHC-01
8. Inductive Proximity Switch Cable 0.3 m - Connector M8: NJ4-E2SK-01
9. Plug in connector Angled Cable 5 m - Socket M8: KAW500
10. Plug in connector Straight Cable 5 m - Socket M8: KAG500
11. Angled Fittings - Quick Connect Style: WV1-8x6
12. Straight Fittings - Quick Connect Style: GV1-8x6
13. Pressure Safety Valve: DSV1-8
15. Compensation module Straight Fittings - 4uicN: ZUB5010PCO

TECHNICAL DRAWINGS ACCESSORIES

One universal jaw is required for each gripper jaw.

Compensation module for compensating for the height differences between the pneumatic and electric gripper version.

For each gripper jaw, one interchangeable jaw loose part set and one interchangeable jaw fixed part are needed.
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5013

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function of finger length.

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

Order no. GPP5013N GPP5013NC GPP5013NO GPP5013S GPP5013SC GPP5013SO
Stroke per jaw [mm] 13 13 13 6 6 6
Gripping force in closing [N] 1410 1920 3100 4220 4400
Gripping force in opening [N] 1490 1860 3280 1120 1120
Gripping force secured by spring min. [N] 0.09 0.07 0.11 0.09 0.07 0.11
Closing time [s] 0.09 0.11 0.08 0.09 0.11 0.08
Opening time [s] 2.4 2.4 2.4 2.4 2.4 2.4
Weight per jaw max. [kg] 200 185 185 185 170 170
Length of the gripper fingers max. [mm] 200 185 185 185 170 170
Repetition accuracy +/- [mm] 0.01 0.01 0.01 0.01 0.01 0.01
Operating pressure min. [bar] 3 4 4 3 4 4
Operating pressure max. [bar] 8 7 7 8 7 7
Operating temperature [°C] -10 ... +90 -10 ... +90 -10 ... +90 -10 ... +90 -10 ... +90 -10 ... +90
Air volume per cycle [cm³] 171 171 171 88 171 171
Protection to IEC 60529 IP64 IP64 IP64 IP64 IP64 IP64
Weight [kg] 1.5 1.9 1.9 1.5 1.9 1.9

*All data measured at 6 bar
** with purged air

TECHNICAL DATA

Technical Data*

Order no. GPP5013NP GPP5013NCP GPP5013NOP GPP5013S GPP5013SCP GPP5013SOP
Protection to IEC 60529 IP67** IP67** IP67** IP67** IP67** IP67**
Weight [kg] 1.86 2.26 2.26 1.86 2.26 2.26

Technical Data - Protector Version

Order no. GPP5013NT GPP5013NCT GPP5013NOT GPP5013ST GPP5013SCT GPP5013SOT
Operating temperature [°C] -10 ... +130 -10 ... +130 -10 ... +130 -10 ... +130 -10 ... +130 -10 ... +130

Technical Data - High Temperature Version

Order no. GPP5013NT GPP5013NCT GPP5013NOT GPP5013ST GPP5013SCT GPP5013SOT
Operating temperature [°C] -10 ... +130 -10 ... +130 -10 ... +130 -10 ... +130 -10 ... +130 -10 ... +130

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Data, Drawings, 3-D Models, Operating Instructions
TECHNICAL DRAWINGS

**NC / NO / SC / SO**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Integrated slot for magnetic field sensor
5. Mounting block
6. Air purge connection option
7. Attachment option for customer-specific fittings
8. Adapter

**Protector version**

1. Hoseless air feed-through

Installation size GPP5013 / 2-Jaw Parallel Grippers / pneumatic / Grippers
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5013

INCLUDED IN DELIVERY

1. Centering Disc 018187
2. Centering Disc 019280
**RECOMMENDED ACCESSORIES**

- Universal jaw aluminium: UB5013AL
- Universal jaw steel: UB5013ST
- Changeable jaw, loose-part-set: WB5013L
- Changeable jaw, fix-part: WB5013F
- Magnetic field sensor Angled Cable 0,3 m - Connector M8: MFS103SKHC
- Magnetic field sensor Straight Cable 0,3 m - Connector M8: MFS204SKHC
- 2-Position-Sensor Cable 0,3 m - Connector M8: MFSP2SKHC-01
- Inductive proximity switch - Connector M8: NJ8-E2S
- Plug-in connector Angled Cable 5m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female): KAG500
- Plug-in connector customisable Straight - Connector M8: S8-G3
- Angled Fittings - Quick Connect Style: WV1-8X6
- Straight Fittings - Quick Connect Style: GV1-8X6
- Quick Exhaust Valve: DEV06
- Pressure Safety Valve: DSV1-8

**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 fix part are needed.
# 2-JAW PARALLEL GRIPPERS
## INSTALLATION SIZE GPP5016

### PRODUCT SPECIFICATIONS

#### Gripping force diagram
![Gripping Force Diagram](image)

Gripping force as a function of finger length.

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

- $M_x$ [Nm]: 195
- $M_y$ [Nm]: 185
- $F_a$ [N]: 5200

### TECHNICAL DATA

#### Technical Data*

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<thead>
<tr>
<th>Order no.</th>
<th>GPP5016N</th>
<th>GPP5016NC</th>
<th>GPP5016NO</th>
<th>GPP5016S</th>
<th>GPP5016SC</th>
<th>GPP5016SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2090</td>
<td>2860</td>
<td>4610</td>
<td>6310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2220</td>
<td>2990</td>
<td>4900</td>
<td>6600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>770</td>
<td>770</td>
<td>1700</td>
<td>1700</td>
<td></td>
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<tr>
<td>Closing time [s]</td>
<td>0.13</td>
<td>0.11</td>
<td>0.24</td>
<td>0.13</td>
<td>0.11</td>
<td>0.24</td>
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<tr>
<td>Opening time [s]</td>
<td>0.13</td>
<td>0.24</td>
<td>0.11</td>
<td>0.13</td>
<td>0.24</td>
<td>0.11</td>
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<tr>
<td>Weight per jaw max. [kg]</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
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<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>60</td>
<td>40</td>
<td>20</td>
<td>80</td>
<td>100</td>
<td>120</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>60</td>
<td>40</td>
<td>20</td>
<td>80</td>
<td>100</td>
<td>120</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>166</td>
<td>332</td>
<td>332</td>
<td>166</td>
<td>332</td>
<td>332</td>
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<td>Protection to IEC 60529</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
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<td>IP64</td>
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<tr>
<td>Weight [kg]</td>
<td>2.9</td>
<td>3.7</td>
<td>3.7</td>
<td>2.9</td>
<td>3.7</td>
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#### Technical Data - Protector Version

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<th>GPP5016NP</th>
<th>GPP5016NCP</th>
<th>GPP5016NOP</th>
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<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>3.6</td>
<td>4.4</td>
<td>4.4</td>
<td>3.6</td>
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</table>

#### Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5016NT</th>
<th>GPP5016NCT</th>
<th>GPP5016NOT</th>
<th>GPP5016ST</th>
<th>GPP5016SCT</th>
<th>GPP5016SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
**with purged air
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5016

INCLUDED IN DELIVERY

1. Centering Disc 019387
2. Centering Disc 019280
RECOMMENDED ACCESSORIES

Universal jaw aluminium
UB5016AL

Universal jaw steel
UB5016ST

Changeable jaw, loose-part-set
WB5016L

Changeable jaw, fix-part
WB5016F

Magnetic field sensor angled
Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor straight	
Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable 0.3 m - Connector M8
MFSP2SKHC-01

Inductive proximity switch
- Connector M8
NJ8-E2S

Plug-in connector angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable
Straight - Connector M8
SSG-3

Angled Fittings - Quick Connect Style
WV1-8X6

Straight Fittings - Quick Connect Style
GV1-8X6

Quick Exhaust Valve
DEV06

Pressure Safety Valve
DSV1-8

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
## 2-JAW PARALLEL GRIPPERS
### INSTALLATION SIZE GPP5025

### PRODUCT SPECIFICATIONS

#### Gripping force diagram

Gripping force as a function finger length.

#### Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>205</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>225</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>7500</td>
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</table>

### TECHNICAL DATA

#### Technical Data*

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<th>Order no.</th>
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<th>GPP5025NC</th>
<th>GPP5025NO</th>
<th>GPP5025S</th>
<th>GPP5025SC</th>
<th>GPP5025SO</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3280</td>
<td>4510</td>
<td>6360</td>
<td>8730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>3490</td>
<td>4710</td>
<td>6760</td>
<td>9130</td>
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</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>1220</td>
<td>1220</td>
<td>2370</td>
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<tr>
<td>Closing time [s]</td>
<td>0.33</td>
<td>0.28</td>
<td>0.57</td>
<td>0.33</td>
<td>0.28</td>
<td>0.57</td>
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<tr>
<td>Opening time [s]</td>
<td>0.33</td>
<td>0.57</td>
<td>0.28</td>
<td>0.33</td>
<td>0.57</td>
<td>0.28</td>
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<tr>
<td>Weight per jaw max. [kg]</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>310</td>
<td>265</td>
<td>265</td>
<td>265</td>
<td>220</td>
<td>220</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>420</td>
<td>830</td>
<td>830</td>
<td>420</td>
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<td>Protection to IEC 60529</td>
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<td>6.1</td>
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<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5025NP</th>
<th>GPP5025NCP</th>
<th>GPP5025NOP</th>
<th>GPP5025SP</th>
<th>GPP5025SCP</th>
<th>GPP5025SOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>7.20</td>
<td>8.75</td>
<td>8.75</td>
<td>7.2</td>
<td>8.75</td>
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</table>

#### Technical Data - Protector Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5025NT</th>
<th>GPP5025NCT</th>
<th>GPP5025NOT</th>
<th>GPP5025ST</th>
<th>GPP5025SCT</th>
<th>GPP5025SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

#### Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5025NT</th>
<th>GPP5025NCT</th>
<th>GPP5025NOT</th>
<th>GPP5025ST</th>
<th>GPP5025SCT</th>
<th>GPP5025SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar

** with purged air

www.zimmer-group.com - Data, Drawings, 3-D Models, Operating Instructions
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5025

► INCLUDED IN DELIVERY

1. Centering Disc
   030529

2. Centering Disc
   019387
RECOMMENDED ACCESSORIES

Universal jaw aluminium
UB5025AL

Universal jaw steel
UB5025ST

Changeable jaw, loose-part-set
WB5025L

Changeable jaw, fix-part
WB5025F

Magnetic field sensor Angled
Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight
Cable 0.3 m - Connector M8
MFS204SKHC

2-Position-Sensor Cable
0.3 m - Connector M8
MFSP2SKHC-01

Inductive proximity switch
- Connector M8
NJ8-E2S

Plug-in connector Angled Cable 5m - Socket M8 (male)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (male)
KAG500

Plug-in connector customizable Straight - Connector M8
SS5-G3

Angled Fittings - Quick Connect Style
WV1-8X8

Straight Fittings - Quick Connect Style
GV1-8X8

Quick Exhaust Valve
DEV08

Pressure Safety Valve
DSV1-8

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
### Product Specifications

#### Gripping force diagram

Gripping force as a function of finger length.

#### Forces and moments

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

### Technical Data

#### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5030N</th>
<th>GPP5030NC</th>
<th>GPP5030NO</th>
<th>GPP5030S</th>
<th>GPP5030SC</th>
<th>GPP5030SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>5000</td>
<td>6850</td>
<td>9600</td>
<td>13160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>5210</td>
<td>7060</td>
<td>9990</td>
<td>13550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>1850</td>
<td>1850</td>
<td>3560</td>
<td>3560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.4</td>
<td>0.35</td>
<td>0.65</td>
<td>0.4</td>
<td>0.35</td>
<td>0.65</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.4</td>
<td>0.65</td>
<td>0.35</td>
<td>0.4</td>
<td>0.65</td>
<td>0.35</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>9.5</td>
<td>9.5</td>
<td>9.5</td>
<td>9.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>355</td>
<td>305</td>
<td>305</td>
<td>260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>745</td>
<td>1430</td>
<td>1430</td>
<td>745</td>
<td>1430</td>
<td>1430</td>
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<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>9.2</td>
<td>12</td>
<td>12</td>
<td>9.2</td>
<td>12</td>
<td>12</td>
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</table>

#### Technical Data - Protector Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5030NP</th>
<th>GPP5030NCP</th>
<th>GPP5030NOP</th>
<th>GPP5030S</th>
<th>GPP5030SCP</th>
<th>GPP5030SOP</th>
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</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>10.9</td>
<td>13.7</td>
<td>13.7</td>
<td>10.9</td>
<td>13.7</td>
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</tr>
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</table>

#### Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPP5030NT</th>
<th>GPP5030NCT</th>
<th>GPP5030NOT</th>
<th>GPP5030ST</th>
<th>GPP5030SCT</th>
<th>GPP5030SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

** with purged air
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GPP5030

INCLUDED IN DELIVERY

Centering Disc
030529
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.
2-JAW PARALLEL GRIPPERS
SERIES GP400X

► BENEFITS IN DETAIL

1. Robust, lightweight housing - hard coated aluminium alloy
2. Mounting and positioning - mounting possible from several sides for versatile positioning
3. Energy supply - possible from several sides
4. Overlapping guide - for maximum forces and moments capacity
5. Sensing slot - mounting and positioning of magnetic field sensors
6. Wedge hook mechanism - synchronized the movement of the gripper jaws
7. Integrated gripping force safety device - spring integrated into cylinder as energy storage
8. Position sensing - permanent magnet for direct monitoring of piston movement
9. Mounting block - mounting for inductive proximity switch (10)

► TECHNICAL DATA *

- Number of installation sizes: 9
- Stroke per jaw: 3 mm - 30 mm
- Gripping force: 85 N - 19275 N
- Weight: 0.08 kg - 18.9 kg

* further information is available online

► FOR NEW DESIGNS, USE THE SUCCESSOR SERIES, THE GPP5000

“The Universal One”
- Up to 30% more gripping force than the benchmark
- 10% more static forces and moments than the benchmark
- Gripper fingers up to 10% longer than the benchmark
- Gripper fingers weight up to 15% higher than the benchmark
- Sealed guide IP64 / Protector version IP67 (with purged air)
- Protected against corrosion
- Up to 30 million cycles without maintenance

still available
2-JAW PARALLEL GRIPPERS
SERIES GP100

► BENEFITS IN DETAIL

1. **Gripper jaw**
   - individual gripper finger mounting

2. **Wedge hook mechanism**
   - synchronized the movement of the gripper jaws
   - high force transfer

3. **Ball guide**
   - smooth running guides via rolling friction
   - near constant force in various gripping jaw lengths

4. **Removable centering sleeves**
   - quick and economical positioning of the gripper fingers

5. **Mounting block**
   - mounting for inductive proximity switch

6. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning

7. **Drive**
   - double-acting pneumatic cylinder

8. **Energy supply**
   - possible from several sides

► TECHNICAL DATA

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>5</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>3 mm - 15 mm</td>
</tr>
<tr>
<td>Gripping jaw</td>
<td>21 N - 1000 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.09 kg - 2.3 kg</td>
</tr>
</tbody>
</table>

*Further information is available online

► FOR NEW DESIGNS, USE THE SUCCESSOR SERIES, THE GPP5000

"The Universal One"

► Up to 30% more gripping force than the benchmark
► 10% more static forces and moments than the benchmark
► Gripper fingers up to 10% longer than the benchmark
► Gripper fingers weight up to 15% higher than the benchmark
► Sealed guide IP64 / Protector version IP67 (with purged air)
► Protected against corrosion
► Up to 30 million cycles without maintenance

*Further information is available online*
2-JAW PARALLEL GRIPPERS
SERIES GP1800

BENEFITS IN DETAIL

1. Mounting and positioning
   - mounting possible from several sides for versatile positioning
2. Permanent magnet
   - installed in piston area
3. Wedge hook mechanism
   - synchronized the movement of the gripper jaws
   - high force transfer
4. Sealed and precise square guide
   - high forces and moments capacity
5. Energy supply
   - possible from several sides
6. Drive
   - double-acting pneumatic cylinder
7. Removable centering sleeves
   - quick and cost-effective gripper finger positioning
8. Integrated gripping force safety device
   - optional via integrated spring (C and O Models)

TECHNICAL DATA*

<table>
<thead>
<tr>
<th>Number of installation sizes</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw</td>
<td>3 mm - 30 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>85 N - 6900 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.12 kg - 22 kg</td>
</tr>
</tbody>
</table>

*Further information is available online

FOR NEW DESIGNS, USE THE SUCCESSOR SERIES, THE GPP5000

"The Universal One"

- Up to 30% more gripping force than the benchmark
- 10% more static forces and moments than the benchmark
- Gripper fingers up to 10% longer than the benchmark
- Gripper fingers weight up to 15% higher than the benchmark
- Sealed guide IP64 / Protector version IP67 (with purged air)
- Protected against corrosion
- Up to 30 million cycles without maintenance
2-JAW PARALLEL GRIPPERS
SERIES GP1200

**BENEFITS IN DETAIL**

1. **Stroke adjustment**
   - Infinitely adjustable opening stroke
   - Adjusting screw in delivery

2. **Wedge hook mechanism**
   - Synchronized the movement of the gripper jaws
   - High force transfer

3. **Sealed flat guide**
   - High forces and moments capacity

4. **Removable centering sleeves**
   - Quick and economical positioning of the gripper fingers

5. **Adjustable mounting block**
   - Mounting for inductive proximity switch

6. **Integrated gripping force safety device**
   - Spring integrated into cylinder as energy storage

7. **Drive**
   - Double-acting pneumatic cylinder

8. **Energy supply**
   - Possible from several sides

**TECHNICAL DATA***

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>4</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>12 mm - 40 mm</td>
</tr>
<tr>
<td>Gripping jaw</td>
<td>130 N - 1550 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.48 kg - 10.5 kg</td>
</tr>
</tbody>
</table>

*Further information is available online*

**FOR NEW DESIGNS, USE THE SUCCESSOR SERIES, THE GP200**

"The variable"

- **Smooth stroke configuration**
  - An adjusting screw allows you to adjust the stroke to your specific application

- **Proven technology**
  - We have more than 20 years of proven reliability, which ensures uninterrupted production for you

- **Dirt protection**
  - Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions
2-JAW PARALLEL GRIPPERS
OVERVIEW OF SERIES
## Electrical

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEP9000</td>
<td>120</td>
</tr>
<tr>
<td>GEP1400</td>
<td>126</td>
</tr>
<tr>
<td>GEP5000</td>
<td>132</td>
</tr>
<tr>
<td>GEP1600</td>
<td>146</td>
</tr>
</tbody>
</table>
2-JAW PARALLEL GRIPPERS
SERIES GEP9000

PRODUCT ADVANTAGES

“The quickest”

► Plug and Play
Reduce programming and assembly costs to a minimum with the integrated control system and the 3 position query

► 250 cycles per minute
No more worrying about cycle times: There is nothing faster on the market!

► Failure-free continuous operation
Our “Made in Germany” quality guarantees up to 30 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GEP9002N</th>
<th>-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grip direction closed</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Grip direction opened</td>
<td></td>
<td>O</td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Energy supply**
   - standardized interface M12 round connector

2. **Drive**
   - via Pot magnet and coil bobbin according to the coil system principle
   - energy consumption only at opening and closing (<25ms)

3. **Position sensing**
   - integrated Hall sensor
   - 3 positions monitorable

4. **Status control**
   - optical LED position display
   - gripper opened, gripper closed, "workpiece available"

5. **Wedge hook mechanism**
   - mechanical self-locking at stop position

6. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning

7. **Robust, lightweight housing**
   - hard coated aluminium alloy

8. **Gripper jaw**
   - from high-strength, hard-anodized aluminium
   - removable centering sleeves for individual gripper finger mounting

**SERIES CHARACTERISTICS**

- **Number of installation sizes**: 2
- **Stroke per jaw**: 2 mm - 4 mm
- **Gripping force**: 15 N - 50 N
- **Weight**: 0.25 kg - 0.57 kg
- **AP class**: 2

- **30 million maintenance-free cycles (max.)**
- **Integrated sensing**
- **Spring closing C**: IP 40
- **Spring opening O**: Purged air

---

Series GEP9000 / 2-Jaw Parallel Grippers / electric / Grippers

Data, Drawings, 3-D Models, Operating Instructions ➔ www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEP9002

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function of finger length.

<table>
<thead>
<tr>
<th>Finger Length [mm]</th>
<th>GEP9002NC max.</th>
<th>GEP9002NO max.</th>
<th>GEP9002NC min.</th>
<th>GEP9002NO min.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>12</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>14</td>
<td>11</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>13</td>
<td>10</td>
<td>7</td>
<td>4</td>
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<td>3</td>
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<td>25</td>
<td>11</td>
<td>8</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>10</td>
<td>7</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Colored area: increased wear and tear to be expected

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

<table>
<thead>
<tr>
<th>Moment [Nm]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr</td>
<td>1.5</td>
</tr>
<tr>
<td>Mx</td>
<td>1.5</td>
</tr>
<tr>
<td>My</td>
<td>2.1</td>
</tr>
<tr>
<td>Fa</td>
<td>270</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST80320

RECOMMENDED ACCESSORIES

Plug-in Connector Angled Cable 10 m - Female M12
KAW1000B8

Plug-in Connector Straight Cable 10 m - Female M12
KAG1000B8

Blubox
see page 839

ZUBBOX9000-01
### Technical Data

<table>
<thead>
<tr>
<th></th>
<th>GEP9002NC-B</th>
<th>GEP9002NO-B</th>
<th>GEP9002NCV-B</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grip force in grip direction min. [N]</td>
<td>11</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Grip force in grip direction max. [N]</td>
<td>15</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Permanent operation cycle count max. [cycle/min]</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Cycle count max. [cycle/min]</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Operating time [ms]</td>
<td>&lt;20</td>
<td>&lt;20</td>
<td>&lt;20</td>
</tr>
<tr>
<td>Pulse time in opening [ms]</td>
<td>25</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>Pulse time in closing [ms]</td>
<td>7</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Current consumption per pulse max. [A]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Weight per jaw max. [g]</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
<td>IP40</td>
<td>IP40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.25</td>
<td>0.25</td>
<td>0.34</td>
</tr>
</tbody>
</table>

### Installation size GEP9002 / 2-Jaw Parallel Grippers / electric / Grippers

- **NC / NO**
- ***ripper attachment**
- **1** Energy supply
- **3** Fixing for gripper finger

**Power-assisted Version**

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEP9004

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]   | 2.7 |
| Mx [Nm]   | 2.7 |
| My [Nm]   | 4.3 |
| Fa [N]    | 335 |

INCLUDED IN DELIVERY

Centering Disc
DST80320

RECOMMENDED ACCESSORIES

Plug-in Connector Angled Cable 10 m - Female M12
KAW1000B8

Plug-in Connector Straight Cable 10 m - Female M12
KAG1000B8

Busibox
see page 839
ZUBBOX9000-01
### Technical Data

<table>
<thead>
<tr>
<th>Order No.</th>
<th>GEP9004NC-B</th>
<th>GEP9004NO-B</th>
<th>GEP9004NCV-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Grip force in grip direction min. [N]</td>
<td>14</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>Grip force in grip direction max. [N]</td>
<td>26</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>Permanent operation cycle count max. [cycle/min]</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Cycle count max. [cycle/min]</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Operating time [ms]</td>
<td>&lt;20</td>
<td>&lt;20</td>
<td>&lt;20</td>
</tr>
<tr>
<td>Pulse time in opening [ms]</td>
<td>35</td>
<td>9</td>
<td>35</td>
</tr>
<tr>
<td>Pulse time in closing [ms]</td>
<td>9</td>
<td>35</td>
<td>9</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.1</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Current consumption per pulse max. [A]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Weight per jaw max. [g]</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
<td>IP40</td>
<td>IP40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.57</td>
<td>0.57</td>
<td>0.79</td>
</tr>
</tbody>
</table>

### Graphical Data

- **1** Gripper attachment
- **2** Energy supply
- **3** Fixing for gripper finger

---

[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
SERIES GEP1400

PRODUCT ADVANTAGES

“The robust”

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

► Integrated position sensing
You can detect the gripper status safely via the motor current using your control system

► The simplest activation
The included control unit is controlled easily via plus and minus buttons, while you can optionally adjust the gripping force using the potentiometer

THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Removable centering sleeves**
   - quick and economical positioning of the gripper fingers

2. **Positively driven curve disc**
   - synchronized the movement of the gripper jaws
   - high force transfer
   - rapid stroke and force stroke (version with 6 mm stroke per jaw)

3. **Robust, lightweight housing**
   - hard coated aluminium alloy

4. **Gripper jaw**
   - hardened steel
   - individual gripper finger mounting

5. **Guide**
   - precise T-Slot guide for high forces and moments capacity

6. **Drive**
   - electric drive by 24 VDC step motor

7. **Position sensing**
   - measured at the end of stroke via power increase on the motor

8. **Energy supply**
   - standardized interface M8 round plug
   - signal control line (use only cable without diode)

**SERIES CHARACTERISTICS**

**Technical Information**

All information just a click away at: www.zimmer-group.com

Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.

Quick, clear and always up-to-date.
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEP1402

PRODUCT SPECIFICATIONS

Gripping force diagram

![Gripping force diagram]

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>5</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>4</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>70</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST02900

Control
ELEGR01

RECOMMENDED ACCESSORIES

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GEP1402</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stroke per jaw (mm)</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Gripping force in closing (adjustable) max. [N]</strong></td>
<td>140</td>
</tr>
<tr>
<td><strong>Gripping force in opening (adjustable) max. [N]</strong></td>
<td>140</td>
</tr>
<tr>
<td><strong>Opening time [s]</strong></td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Closing time [s]</strong></td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Repetition accuracy +/- [mm]</strong></td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Voltage [V]</strong></td>
<td>24</td>
</tr>
<tr>
<td><strong>Max. current regulable by potentiometer [mA]</strong></td>
<td>140</td>
</tr>
<tr>
<td><strong>Operating temperature min. [°C]</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>Operating temperature max. [°C]</strong></td>
<td>80</td>
</tr>
<tr>
<td><strong>Protection to IEC 60529</strong></td>
<td>IP52</td>
</tr>
<tr>
<td><strong>Weight [kg]</strong></td>
<td>0.3</td>
</tr>
</tbody>
</table>

*12 volt voltage on request

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEP1406

PRODUCT SPECIFICATIONS

Gripping force diagram

Gripping force as a function of finger length.

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>30</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>20</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>500</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc

BDST40800

Control

ELEGR04

RECOMMENDED ACCESSORIES

Plug-in connector Angled Cable 5m - Socket M8 (female)

KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)

KAG500
### Technical Data

<table>
<thead>
<tr>
<th></th>
<th>GEP1406C</th>
<th>GEP1406O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order no.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in closing (adjustable) max. [N]</td>
<td>350</td>
<td>-</td>
</tr>
<tr>
<td>Gripping force in opening (adjustable) max. [N]</td>
<td>-</td>
<td>350</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Voltage [V] *</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Max. current regulable by potentiometer [mA]</td>
<td>210</td>
<td>210</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP52</td>
<td>IP52</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*12 volt voltage on request

---

**Technical Data**

1. **Gripper attachment**
2. **Energy supply**
3. **Fixing for gripper finger**

---

![Diagram of Gripper Attachment](image-url)

**Installation size GEP1406 / 2-Jaw Parallel Grippers / electric / Grippers**

Data, Drawings, 3-D Models, Operating Instructions ➤ [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
SERIES GEP5000

PRODUCT ADVANTAGES

“ALL in ONE”

► Approximately the same gripping force as a comparable pneumatic gripper
► Mechanical self limitation in case of power drop
► Same connection hole patterns as a comparable pneumatic gripper
► Plug and play – single-cable solution, supports incredibly easy control using I/O signals
► Integrated ACM control module - option of configuring gripping force, travel time and 3 switching points
► Protected from corrosion and sealed in accordance with IP64
► Brushless DC motor – up to 30 million cycles without maintenance

THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BEFORE AND AFTER**

1. **Wedge hook mechanism**
   - Supports to absorb high forces and moments
   - Synchronized gripper jaw movement

2. **Gripper jaw**
   - DLC coated to protect against corrosion
   - Gripper fingers mounted using removable centring sleeves
   - Lubricated for life via incorporated lubrication slots

3. **Dual lip seal**
   - Enables IP66
   - Prevents grease from being squeezed out, increasing service life

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

5. **Mounting and positioning**
   - Alternatively, on several sides for customized mounting
   - Pneumatic and electrical versions identical apart from height

6. **BLDC motor**
   - Wear-resistant brushless DC motor

7. **Advanced control module**
   - Integrated control module with single-cable solution
   - Gripping force, travel time and query programmable via the control panel on the housing

8. **Drive train**
   - Combination of trapezoidal spindle and gear
   - Durable and robust

**SERIES CHARACTERISTICS**

- **Number of installation sizes**: 3
- **Stroke per jaw**: 6 mm - 10 mm
- **Gripping force**: 540 N - 1900 N
- **Weight**: 0.79 kg - 1.66 kg
- **AP class**: 5

- 30 million maintenance-free cycles (max.)
- Integrated sensing
- Mechanical self limitation
- IP64
- Purged air

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com
## PRODUCT SPECIFICATIONS

### Gripping force diagram

Gripping force as a function of finger length.

### 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 - BASIC VERSION

<table>
<thead>
<tr>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
</tr>
<tr>
<td>Control time [s]</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]*</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
</tr>
<tr>
<td>Voltage [V]</td>
</tr>
<tr>
<td>Current consumption max. [A]</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
</tr>
<tr>
<td>Weight [kg]</td>
</tr>
</tbody>
</table>

* Depending on speed level selected

## TECHNICAL DATA - MODES

### Technical data - N mode

<table>
<thead>
<tr>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force -1- min. / max. [N]</td>
</tr>
<tr>
<td>Gripping force -+-- min. / max. [N]</td>
</tr>
<tr>
<td>Travel time -1- min. / max. [s]</td>
</tr>
<tr>
<td>Travel time -+-- min. / max. [s]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force -1- min. / max. [N]</td>
</tr>
<tr>
<td>Gripping force -+-- min. / max. [N]</td>
</tr>
<tr>
<td>Travel time -1- min. / max. [s]</td>
</tr>
<tr>
<td>Travel time -+-- min. / max. [s]</td>
</tr>
</tbody>
</table>

### Technical data - NC mode

<table>
<thead>
<tr>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force -1- min. / max. [N]</td>
</tr>
<tr>
<td>Gripping force -+-- min. / max. [N]</td>
</tr>
<tr>
<td>Travel time -1- min. / max. [s]</td>
</tr>
<tr>
<td>Travel time -+-- min. / max. [s]</td>
</tr>
</tbody>
</table>

### Technical data - NO mode

<table>
<thead>
<tr>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force -1- min. / max. [N]</td>
</tr>
<tr>
<td>Gripping force -+-- min. / max. [N]</td>
</tr>
<tr>
<td>Travel time -1- min. / max. [s]</td>
</tr>
<tr>
<td>Travel time -+-- min. / max. [s]</td>
</tr>
</tbody>
</table>

## INSTALLATION SIZE GEP5006

- 2-JAW PARALLEL GRIPPERS
- www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEP5006

INCLUDED IN DELIVERY

1. Centering Disc
   024230

2. Centering Disc
   024231

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
RECOMMENDED ACCESSORIES

Universal jaw aluminium
UB5006AL

Universal jaw steel
UB5006ST

Changeable jaw, loose-part-set
WB5006L

Changeable jaw, fix-part
WB5006F

Plug-in Connector Angled
Cable 10 m - Female M12
KAW1000B8

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

www.zimmer-group.com
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEP5008

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function of finger length.

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

Forces and moments
Mx [Nm]  60
My [Nm]  105
Mr [Nm]  65
Fa [N]  1900

TECHNICAL DATA - BASIC VERSION

Order no.
Stroke per jaw [mm]  8
Control time [s]  0.035
Weight per jaw max. [kg]  0.7
Length of the gripper fingers max. [mm]*  125
Repetition accuracy +/- [mm]  0.01
Voltage [V]  24
Current consumption max. [A]  5
Operating temperature min. [°C]  5
Operating temperature max. [°C]  50
Protection to IEC 60529  IP64
Weight [kg]  1.16

*Depending on speed level selected

TECHNICAL DATA - MODES

Technical data - N mode
Order no.
Gripping force → min. / max. [N]  800 / 1450
Gripping force [→→] min. / max. [N]  800 / 1450
Travel time → min. / max. [s]  0.18 / 0.29
Travel time [→→] min. / max. [s]  0.18 / 0.29

Technical data - NC mode
Order no.
Gripping force → min. / max. [N]  800 / 1450
Gripping force [→→] min. / max. [N]  -
Travel time → min. / max. [s]  0.18 / 0.29
Travel time [→→] min. / max. [s]  0.15

Technical data - NO mode
Order no.
Gripping force → min. / max. [N]  -
Gripping force [→→] min. / max. [N]  800 / 1450
Travel time → min. / max. [s]  0.15
Travel time [→→] min. / max. [s]  0.18 / 0.29
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEP5008

INCLUDED IN DELIVERY

Centering Disc
024231
**RECOMMENDED ACCESSORIES**

1. Universal jaw aluminium
   - UB5008AL
2. Universal jaw steel
   - UB5008ST
3. Changeable jaw, loose part-set
   - WB5008L
4. Changeable jaw, fix-part
   - WB5008F
5. Plug-in Connector Angled
   - Cable 10 m - Female M12
   - KAW1000B8
6. Plug-in Connector Straight
   - KAG1000B8

**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.
## PRODUCT SPECIFICATIONS

### Gripping force diagram

Gripping force as a function of finger length.

### Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>125</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>95</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>2700</td>
</tr>
</tbody>
</table>

## TECHNICAL DATA - BASIC VERSION

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEP5010N</td>
<td>Stroke per jaw [mm]</td>
</tr>
<tr>
<td></td>
<td>Control time [s]</td>
</tr>
<tr>
<td></td>
<td>Weight per jaw max. [kg]</td>
</tr>
<tr>
<td></td>
<td>Length of the gripper fingers max. [mm]</td>
</tr>
<tr>
<td></td>
<td>Repetition accuracy +/- [mm]</td>
</tr>
<tr>
<td></td>
<td>Voltage [V]</td>
</tr>
<tr>
<td></td>
<td>Current consumption max. [A]</td>
</tr>
<tr>
<td></td>
<td>Operating temperature min. [°C]</td>
</tr>
<tr>
<td></td>
<td>Operating temperature max. [°C]</td>
</tr>
<tr>
<td></td>
<td>Protection to IEC 60529</td>
</tr>
<tr>
<td></td>
<td>Weight [kg]</td>
</tr>
</tbody>
</table>

*Depending on speed level selected

## TECHNICAL DATA - MODES

### Technical data - N mode

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - N mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEP5010N</td>
<td>Gripping force -&gt;1- min. / max. [N]</td>
</tr>
<tr>
<td></td>
<td>Gripping force -&gt;1- min. / max. [N]</td>
</tr>
<tr>
<td></td>
<td>Travel time -&gt;1- min. / max. [s]</td>
</tr>
<tr>
<td></td>
<td>Travel time -&gt;1- min. / max. [s]</td>
</tr>
</tbody>
</table>

### Technical data - NC mode

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - NC mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEP5010N</td>
<td>Gripping force -&gt;1- min. / max. [N]</td>
</tr>
<tr>
<td></td>
<td>Gripping force -&gt;1- min. / max. [N]</td>
</tr>
<tr>
<td></td>
<td>Travel time -&gt;1- min. / max. [s]</td>
</tr>
<tr>
<td></td>
<td>Travel time -&gt;1- min. / max. [s]</td>
</tr>
</tbody>
</table>

### Technical data - NO mode

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - NO mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEP5010N</td>
<td>Gripping force -&gt;1- min. / max. [N]</td>
</tr>
<tr>
<td></td>
<td>Gripping force -&gt;1- min. / max. [N]</td>
</tr>
<tr>
<td></td>
<td>Travel time -&gt;1- min. / max. [s]</td>
</tr>
<tr>
<td></td>
<td>Travel time -&gt;1- min. / max. [s]</td>
</tr>
</tbody>
</table>
INCLUDED IN DELIVERY

Centering Disc

018187
RECOMMENDED ACCESSORIES

Universal jaw aluminium
UB5010AL

Universal jaw steel
UB5010ST

Changeable jaw, loose-part set
WB5010L

Changeable jaw, fix-part
WB5010F

Plug-in Connector Angled
Cable 10 m - Female M12
KAW1000B8

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
2-JAW PARALLEL GRIPPERS
SERIES GEP1600

▸ BENEFITS IN DETAIL

1. Removable centering sleeves
   - quick and economical positioning of the gripper fingers
2. Positively driven curve disc
   - synchronized the movement of the gripper jaws
   - high force transfer
   - rapid stroke and force stroke (version with 6 mm stroke per jaw)
3. Robust, lightweight housing
   - hard coated aluminium alloy
4. Gripper jaw
   - hardened steel
   - individual gripper finger mounting
5. Guide
   - sealed round guide for harsh environmental conditions
6. Drive
   - electric drive by 24 VDC step motor
7. Position sensing
   - measured at the end of stroke via power increase on the motor
8. Energy supply
   - standardized interface M8 round plug
   - signal control line (use only cable without diode)

▸ TECHNICAL DATA*

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>2</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>2 mm - 6 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>115 N - 280 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.3 kg - 1.5 kg</td>
</tr>
</tbody>
</table>

*Further information is available online
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
OVERVIEW OF SERIES
### PNEUMATIC

<table>
<thead>
<tr>
<th>Series</th>
<th>Type</th>
<th>Stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGH8000</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>GH6000</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>GH7000</td>
<td>210</td>
<td></td>
</tr>
</tbody>
</table>
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
SERIES MGH8000

PRODUCT ADVANTAGES

“The compact”

► Reduced interference contours
Low-profile designs and versatile screw connection options enable simple integration into your design

► Dirt protection
Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions

► Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Attachment kit (cam switch and clamping block)**
   - for sensing position by means of proximity switch (optional feature)

2. **Gripper jaw**
   - individual gripper finger mounting

3. **Robust, lightweight housing**
   - hard coated aluminium alloy

4. **Synchronization**
   - via rack and pinion

5. **Drive**
   - two double-acting pneumatic cylinders

6. **Energy supply**
   - possible from several sides

7. **Integrated groove**
   - mounting and positioning of magnetic field sensors

8. **Removable centering sleeves**
   - quick and economical positioning of the gripper fingers

**SERIES CHARACTERISTICS**

- **Number of installation sizes**: 3
- **Stroke per jaw**: 10 mm - 100 mm
- **Gripping force**: 90 N - 910 N
- **Weight**: 0.35 kg - 7.3 kg
- **AP class**: 2

- 10 million maintenance-free cycles (max.)
- Inductive sensor
- Magnetic field sensor
- **IP64**: IP64
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE MGH8010

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>12</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>8</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>260</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST40400

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GVM5
- Plug-in connector Angled Cable 5m - Socket MB (female)
  KAW500
- Plug-in connector Straight Cable 5m - Socket MB (female)
  KAG500
- Inductive proximity switch - Cable 5m
  NJ4-E2
- Inductive Proximity Switch Cable 0.3m - Connector MB
  NJ4-E2SK
- Attachment Kit for Inductive Proximity Switch
  AN50027
- Magnetic field sensor Angled Cable 0.3m - Connector MB
  MFS103KHC
- Magnetic field sensor Straight Cable 5m
  MFS204KHC
- Magnetic field sensor Straight Cable 0.3m - Connector MB
  MFS204SKHC

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGH8010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>90</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.07</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.04</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>4</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.35</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
### PRODUCT SPECIFICATIONS

#### Gripping force diagram

Gripping force as a function of finger length.

- **N** [N] - Gripping force
- **mm**

<table>
<thead>
<tr>
<th>MGH8020</th>
<th>MGH8020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fa [N]</td>
<td>260</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>8</td>
</tr>
<tr>
<td>Mr [Nm]</td>
<td>12</td>
</tr>
</tbody>
</table>

#### Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>12</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>8</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>260</td>
</tr>
</tbody>
</table>

### INCLUDED IN DELIVERY

- **Centering Disc**
  - DST40400

### RECOMMENDED ACCESSORIES

- **Straight Fittings - Quick Connect Style**
  - GVM5
- **Plug-in connector Angled Cable 5 m - Socket M8 (female)**
  - KAW500
- **Plug-in connector Straight Cable 5 m - Socket M8 (female)**
  - KAG500
- **Inductive proximity switch - Cable 5 m**
  - NJ4-E2
- **Inductive Proximity Switch Cable 0.3 m - Connector M8**
  - NJ4-E2SK
- **Attachment Kit for Inductive Proximity Switch**
  - ANS0028
- **Magnetic field sensor Angled Cable 0.3 m - Connector M8**
  - MFS103KHC
- **Magnetic field sensor Angled Cable 0.3 m - Connector M8**
  - MFS103SKHC
- **Magnetic field sensor Straight Cable 0.3 m - Connector M8**
  - MFS204KHC
- **Magnetic field sensor Straight Cable 0.3 m - Connector M8**
  - MFS204SKHC

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154  [www.zimmer-group.com](http://www.zimmer-group.com) Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGH8020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>20</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>90</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.09</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.05</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>8</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

**Technical Data***

- **Order no:** MGH8020
- **Technical Data:**
  - **Hoseless air feed-through**
  - **Gripper attachment**
  - **Energy supply**
  - **Fixing for gripper finger**
  - **Integrated slot for magnetic field sensor**
  - **Fixing for mounting block**
  - **Mounting possibility for cam switch**
  - **Adapter**
  - **Gripper**
  - **Air connection (close)**
  - **Air connection (open)**
  - **Air connection, alternative (close)**
  - **Air connection, alternative (open)**

---

Data, Drawings, 3-D Models, Operating Instructions  ▸  www.zimmer-group.com  155
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE MGH8110

PRODUCT SPECIFICATIONS

- **Gripping force diagram**
  - Gripping force as a function of finger length.

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

  | Mr [Nm] | 20 |
  | My [Nm] | 18 |
  | Fa [N]  | 435|

INCLUDED IN DELIVERY

- Centering Disc
  - BDST40800

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  - GVM5

- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  - KAW500

- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  - KAG500

- Inductive proximity switch - Cable 5 m
  - NJ8-E2

- Inductive proximity switch - Connector M8
  - NJ8-E2S

- Attachment Kit for Inductive Proximity Switch
  - ANS0020

- Magnetic field sensor Angled Cable 0.3 m - Connector M8
  - MFS103KHC

- Magnetic field sensor Straight Cable 5 m
  - MFS103SKHC

- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  - MFS204KHC

- Magnetic field sensor Straight Cable 5 m
  - MFS204SKHC
<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGH8110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>180</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>220</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.08</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.04</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>9.2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.7</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. Mounting possibility for cam switch
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

---

Hoseless air feed-through

---

Installation size MGH8110 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com
PRODUCT SPECIFICATIONS

Gripping force as a function of finger length.

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

Mr [Nm] 20
Mx [Nm] 20
My [Nm] 18
Fa [N] 435

INCLUDED IN DELIVERY

Centering Disc
BDST40800

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5
Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500
Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500
Inductive proximity switch - Cable 5 m
NJ8-E2
Inductive proximity switch - Connector M8
NJ8-E2S
Attachment Kit for Inductive Proximity Switch
ANS0021
Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103KHC
Magnetic field sensor Straight Cable 5 m
MFS103SKHC
Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204KHC
Magnetic field sensor Straight Cable 5 m
MFS204SKHC
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGH8120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>20</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>190</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>220</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.3</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.06</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>18.4</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.85</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

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

Hoseless air feed-through
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE MGH8230

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>64</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>45</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>760</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST41000

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Attachment Kit for Inductive Proximity Switch
ANS0022

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103KHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS2045KHC
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGH8230</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>30</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>500</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>570</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.14</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.4</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE MGH8240

PRODUCT SPECIFICATIONS

Gripping force as a function finger length.

<table>
<thead>
<tr>
<th>Gripping force diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fa [N]</td>
</tr>
<tr>
<td>760</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>760</td>
<td>14436</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST41000

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GVM5
- Plug-in connector Angled Cable 5 m - Socket MB (female)
  KAW500
- Plug-in connector Straight Cable 5 m - Socket MB (female)
  KAG500
- Inductive proximity switch - Cable 5 m
  NJ8-E2
- Inductive proximity switch - Connector MB
  NJ8-E2S
- Attachment Kit for Inductive Proximity Switch
  ANS0023
- Magnetic field sensor Angled Cable 5 m - Connector MB
  MFS103KHC
- Magnetic field sensor Straight Cable 5 m - Connector MB
  MFS103SKHC
- Magnetic field sensor Angled Cable 0.3 m - Connector MB
  MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector MB
  MFS204SKHC
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGH8240</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>500</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>570</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.18</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.14</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>128</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.9</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

**Installation size MGH8240 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers**

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE MGH8350

PRODUCT SPECIFICATIONS

Gripping force diagram

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>130</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>130</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>98</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>1300</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc

DST41600

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-8X6

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Attachment Kit for Inductive Proximity Switch
ANS0024

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103KHC

Magnetic field sensor Angled Cable 5 m
MFS103SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS2045KHC
Order no. | MGH8350
---|---
Stroke per jaw [mm] | 50
Gripping force in closing [N] | 800
Gripping force in opening [N] | 910
Closing time [s] | 0.3
Opening time [s] | 0.25
Repetition accuracy +/- [mm] | 0.05
Operating pressure min, [bar] | 3
Operating pressure max, [bar] | 8
Operating temperature min, [°C] | 5
Operating temperature max, [°C] | 80
Air volume per cycle [cm³] | 170
Weight [kg] | 5.1

*All data measured at 6 bar
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE MGH8375

PRODUCT SPECIFICATIONS

Gripping force diagram

- Gripping force as a function finger length.

Forces and moments

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

| Mr [Nm] | 130 |
| My [Nm] | 130 |
| Fa [N]  | 1300 |

INCLUDED IN DELIVERY

Centering Disc
DST41600

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GV1-8X6

- Plug-in connector Angled Cable 5m - Socket MB (female)
  KAW500

- Plug-in connector Straight Cable 5m - Socket MB (female)
  KAG500

- Inductive proximity switch - Cable 5 m
  NJ8-E2

- Inductive proximity switch - Connector MB
  NJ8-E2S

- Attachment Kit for Inductive Proximity Switch
  AN5025

- Magnetic field sensor Angled Cable 0.3 m - Connector MB
  MFS103KHC

- Magnetic field sensor Straight Cable 0.5 m
  MFS103SKHC

- Magnetic field sensor Straight Cable 0.3 m - Connector MB
  MFS204KHC

- Magnetic field sensor Straight Cable 0.3 m - Connector MB
  MFS204SKHC
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGH8375</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>75</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>800</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>910</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.4</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>255</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>6.2</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. **Mounting possibility for cam switch**
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

---

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE MGH83100

PRODUCT SPECIFICATIONS

Gripping force diagram

- Gripping force as a function of finger length.

Forces and moments

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

| Mr [Nm] | 130  |
| My [Nm] | 130  |
| Fa [N]  | 1300 |

INCLUDED IN DELIVERY

Centering Disc
DST41600

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GV1-8X6

- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500

- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500

- Inductive proximity switch - Cable 5 m
  NJ8-E2

- Inductive proximity switch - Connector M8
  NJ8-E2S

- Attachment Kit for Inductive Proximity Switch
  ANS0026

- Magnetic field sensor Angled Cable 0.3 m - Connector M8
  MFS103KHC

- Magnetic field sensor Straight Cable 5 m
  MFS103SKHC

- Magnetic field sensor Straight Cable 5 m
  MFS204KHC

- Magnetic field sensor - Connector M8
  MFS204SKHC
Order no. MGH83100

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>100</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>800</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>910</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.5</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.4</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>340</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>7.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

- Hoseless air feed-through
- Gripper attachment
- Energy supply
- Fixing for gripper finger
- Integrated slot for magnetic field sensor
- Fixing for mounting block
- Mounting possibility for cam switch
- Adapter
- Gripper
- Air connection (close)
- Air connection (open)
- Air connection, alternative (close)
- Air connection, alternative (open)
Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com

PRODUCT ADVANTAGES

“The robust”

- Gripper jaws may be up to 25% longer in comparison to the benchmark
  The highest force and torque measurement enables flexible for maximum dynamics
- Over 30% more powerful than the benchmark
  Optimisation of weight and force reduces your application costs since all components can have a smaller scale
- Failure-free continuous operation
  Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION
**BENEFITS IN DETAIL**

1. **Mounting block**  
   - mounting for inductive proximity switch
2. **Mounting and positioning**  
   - mounting possible from several sides for versatile positioning
3. **Removable centering sleeves**  
   - quick and economical positioning of the gripper fingers
4. **Gripper jaw**  
   - individual gripper finger mounting
5. **Precise long T-Slot guides**  
   - high forces and moments capacity
6. **Drive**  
   - two double-acting pneumatic cylinders  
   - synchronized by gearwheel
7. **Energy supply**  
   - possible from several sides  
   - CAUTION: always operate long stroke gripper with supplied exhaust air flow control valve (speed regulation)
8. **Robust, lightweight housing**  
   - hard coated aluminium alloy

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>5</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>40 mm - 200 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>155 N - 3400 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.47 kg - 23.8 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Inductive sensor
- Magnetic field sensor
- IP 40  
  - IP40
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6040

PRODUCT SPECIFICATIONS

Gripping force diagram
- Gripping force as a function of finger length.
- Colored area: increased wear and tear to be expected.

Forces and moments
- Displays static forces and moments that can also have an effect, besides the gripping force.
- \( F_a \) [N] 500
- \( M_y \) [Nm] 35
- \( M_x \) [Nm] 35
- \( M_r \) [Nm] 35

INCLUDED IN DELIVERY

- Mounting block: KB6.5-04
- Centering Disc: DST40400
- Flow Control Valves - with Swivel joint: DRVM5X4

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m - Connector M8: MFS103KHC
  - Straight Cable 5 m - Connector M8: MFS204KHC
  - Connector M: MFS204SKHC

- Magnetic field sensor
  - Angled 3 m - Connector M8 (female): MFS103SKHC
  - Straight 3 m - Connector M8 (female): MFS204SKHC

- Plug-in connector
  - Angled Cable 5 m - Socket M8 (female): KAG500
  - Straight Cable 5 m - Socket M8 (female): KA500

- Universal Jaw Aluminium: UB6000-B
- Inductive proximity switch
  - Cable 5 m: NJ6.5-E2-01
- Inductive proximity switch
  - Connector M8: NJ6.5-E2S
- Pressure Safety Valve: DSV1-8

www.zimmer-group.com
### Order no.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>80 ± 0.02</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>35</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>48</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>20</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>29</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>5.5</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2.8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>30</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>25</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>48</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>80</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>5.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Order no.</td>
<td>GH6040-B</td>
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<tr>
<td>Closing time [s]</td>
<td>40</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>155</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>130</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.2</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>20</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.47</td>
</tr>
</tbody>
</table>

* *All data measured at 6 bar

---

**Technical Data**

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

---

Hoseless air feed-through

---

Data, Drawings, 3-D Models, Operating Instructions  ▸  www.zimmer-group.com
**PRODUCT SPECIFICATIONS**

**Gripping force diagram**

- Gripping force as a function of finger length.
- Colored area: increased wear and tear to be expected.

**Forces and moments**

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>50</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>50</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>500</td>
</tr>
</tbody>
</table>

**INCLUDED IN DELIVERY**

- Mounting block: KB6.5-04
- Centering Disc: DST40400
- Flow Control Valves - with Swivel joint: DRVM5X4

**RECOMMENDED ACCESSORIES**

- Magnetic field sensor - Angled Cable 5 m: MFS103KH
- Magnetic field sensor - Angled Cable 0.3 m - Connector M8: MFS103SKHC
- Magnetic field sensor - Straight Cable 5 m: MFS204KH
- Magnetic field sensor - Straight Cable 0.3 m - Connector M8: MFS204SKHC
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female): KAG500
- Universal Jaw Aluminium: UB6000-B
- Inductive proximity switch - Cable 5 m: NJ6.5-E2-01
- Inductive proximity switch - Connector M8: NJ6.5-E2S
- Pressure Safety Valve: DSV1-8

---

**2-JAW PARALLEL GRIPPERS WITH LONG STROKE**

**INSTALLATION SIZE GH6060**

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GH6060-B</th>
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<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>155</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>130</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.25</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.25</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>30</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

* GH6060-B

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Lubrication nipple
5. Integrated slot for magnetic field sensor
6. Fixing for mounting blocN
7. Adapter
8. Gripper

A. Air connection (close)
B. Air connection (open)
C. Air connection, alternative (close)
D. Air connection, alternative (open)

Hoseless air feed-through

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Data, Drawings, 3-D Models, Operating Instructions [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6080

PRODUCT SPECIFICATIONS

Gripping force diagram

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>65</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>65</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>500</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block
  - KB6.5-04
- Centering Disc
  - DST40400
- Flow Control Valves - with Swivel joint
  - DRVM5X4

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m
    - MFS103KHC
  - Connector M8
    - MFS103SKHC
- Magnetic field sensor
  - Straight Cable 5 m
    - MFS204KHC
  - Connector M8
    - MFS204SKHC
- Magnetic field sensor
  - Straight Cable 5 m
    - Connector M8
    - MFS204SKHC
- Magnetic field sensor
  - Angled Cable 5 m - Socket M8 (female)
    - KAW500
- Magnetic field sensor
  - Straight Cable 5 m - Socket M8 (female)
- Pressure Safety Valve
  - DSV1-8
- Universal Jaw Aluminium
  - UB6000-B
- Inductive proximity switch
  - Cable 5 m
    - NJ6.5-E2-01
  - Connector M8
    - NJ6.5-E2S
### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>GH6080-B</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>60</td>
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<tr>
<td>Gripping force in closing [N]</td>
<td>155</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>130</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.3</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram](image-url)
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6140

PRODUCT SPECIFICATIONS

Gripping force diagram

Colored area: increased wear and tear to be expected

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

| Mr [Nm] | 70 |
| My [Nm] | 100 |
| Fa [N]  | 1500 |

INCLUDED IN DELIVERY

<table>
<thead>
<tr>
<th>Mounting block</th>
<th>Centering Disc</th>
<th>Flow Control Valves - with Swivel joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>KB8-27</td>
<td>DST60800</td>
<td>DRV1-8X8</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

<table>
<thead>
<tr>
<th>Magnetic field sensor</th>
<th>Magnetic field sensor</th>
<th>Magnetic field sensor</th>
<th>Magnetic field sensor</th>
<th>Alternate proximity bracket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angled Cable 5 m - Connector M8</td>
<td>Angled Cable 0.3 m - Connector M8</td>
<td>Straight Cable 5 m</td>
<td>Straight Cable 0.3 m - Connector M8</td>
<td>KHA6140-B-8</td>
</tr>
<tr>
<td>MFS103KHC</td>
<td>MFS103SKHC</td>
<td>MFS204KHC</td>
<td>MFS204SKHC</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plug-in connector Angled Cable 5 m - Socket M8 (female)</th>
<th>Plug-in connector Straight Cable 5 m - Socket M8 (female)</th>
<th>Universal Jaw Aluminium</th>
<th>Inductive proximity switch - Cable 5 m - Connector M8</th>
<th>Inductive proximity switch - Connector M8</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAW500</td>
<td>KAG500</td>
<td>UB6100-B</td>
<td>NJ8-E2</td>
<td>NJ8-E2S</td>
</tr>
</tbody>
</table>
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GH6140-B</th>
<th>GHK6140</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>490</td>
<td>490</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>370</td>
<td>370</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>73</td>
<td>73</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.5</td>
<td>1.7</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar

GHK series dimensions, see page 209

---

![Diagram](image-url)

- Gripper attachment
- Energy supply
- Fixing for gripper finger
- Lubrication nipple
- Integrated slot for magnetic field sensor
- Fixing for mounting block
- Fixing clamping bracket (KHA)
- Adapter
- Gripper
- Air connection (close)
- Air connection (open)
- Air connection, alternative (close)
- Air connection, alternative (open)
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6160

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] | 85 |
| Mx [Nm] | 120 |
| My [Nm] | 75 |
| Fa [N]  | 1500 |

INCLUDED IN DELIVERY

- Mounting block: KB8-27
- Centering Disc: DST60800
- Flow Control Valves - with Swivel joint: DRV1-8X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor: MFS103KHC
- Magnetic field sensor: MFS103SKHC
- Magnetic field sensor: MFS204KHC
- Magnetic field sensor: MFS204SKHC
- Alternate proximity bracket: KHA6160-B-8
- Plug-in connector Angled Cable 5 m: KAW500
- Plug-in connector Straight Cable 5 m: KAG500
- Universal Jaw Aluminium: UB6100-B
- Inductive proximity switch: NJ8-E2
- Inductive proximity switch: NJ8-E2S
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GH6160-B</th>
<th>GHK6160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>510</td>
<td>510</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>109</td>
<td>109</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.9</td>
<td>2.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209

---

### Hoseless air feed-through

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

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Data, Drawings, 3-D Models, Operating Instructions [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6180

PRODUCT SPECIFICATIONS

• Gripping force diagram
  - Gripping force as a function of finger length.
  - Colored area: increased wear and tear to be expected.

• Forces and moments
  - Displays static forces and moments that can also have an effect, besides the gripping force.
  - Mr [Nm]: 120
  - Mx [Nm]: 140
  - My [Nm]: 90
  - Fa [N]: 1500

INCLUDED IN DELIVERY

- Mounting block
  - KB8-27
- Centering Disc
  - DST60800
- Flow Control Valves - with Swivel joint
  - DRV1-8X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m
    - MFS103KHC
  - Straight Cable 5 m
    - MFS204KHC
- Magnetic field sensor
  - Connector M8
    - MFS103SKHC
  - Connector M8
    - MFS204SKHC
- Alternate proximity bracket
  - KHA6180-B-8
- Magnetic field sensor
  - Connector M8
  - Plug-in connector Angled Cable 5 m - SocNet M (female)
    - KAW500
  - Plug-in connector Straight Cable 5 m - SocNet M (female)
    - KAG500
- Universal Jaw Aluminium
  - UB6100-B
- Inductive proximity switch - Connector M8
  - NJ8-E2
  - NJ8-E2S
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GH6180-B</th>
<th>GHK6180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order no.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>530</td>
<td>530</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>450</td>
<td>450</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>145</td>
<td>145</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.2</td>
<td>2.4</td>
</tr>
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</table>

*All data measured at 6 bar
GHK series dimensions, see page 209

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**Installation size GH6180 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers**

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6240

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>Mx [Nm]</th>
<th>My [Nm]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>125</td>
<td>80</td>
<td>3000</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block: KB8-28
Centering Disc: DST41000
Flow Control Valves - with Swivel joint: DRV1-8X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor: MFS103KHC
- Magnetic field sensor: MFS103SKHC
- Magnetic field sensor: MFS204KHC
- Magnetic field sensor: MFS204SKHC
- Alternate proximity bracket: KHA6240-B-8
- Plug-in connector: KAW500
- Plug-in connector: KAG500
- Universal Jaw Aluminium: UB6200-B
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S
<table>
<thead>
<tr>
<th>Order no.</th>
<th>GH6240-B</th>
<th>GHK6240</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1120</td>
<td>1120</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>0.3</td>
<td>640</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>183</td>
<td>183</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>3.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
GHK series dimensions, see page 209

Technical Data

- Hoseless air feed-through

**Installation size GH6240 - 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers**

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6260

PRODUCT SPECIFICATIONS

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

INCLUDED IN DELIVERY

<table>
<thead>
<tr>
<th>Mounting block</th>
<th>Centering Disc</th>
<th>Flow Control Valves - with Swivel joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>KB8-28</td>
<td>DST41000</td>
<td>DRV1-8X8</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- Magnetic field sensor Angled Cable 5 m - Connector MB
  - MFS103KHC
- Magnetic field sensor Angled Cable 0.3 m - Connector MB
  - MFS103SKHC
- Magnetic field sensor Straight Cable 5 m
  - MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector MB
  - MFS204SKHC
- Alternate proximity bracket
  - KHA6260-B-8
- Universal Jaw Aluminium
  - UB6200-B
- Inductive proximity switch - Cable 5 m
  - NJ8-E2
- Inductive proximity switch - Connector MB
  - NJ8-E2S
- Magnetic field sensor Angled Cable 3 m - Connector MB
- Plug-in connector Angled Cable 5 m - SocNet M (female)
  - KAW500
- Plug-in connector Straight Cable 5 m - SocNet M (female)
  - KAG500

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>GH6260-B</th>
<th>GHK6260</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>980</td>
<td>980</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>275</td>
<td>275</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.1</td>
<td>4.6</td>
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</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6280

PRODUCT SPECIFICATIONS

- Gripping force diagram
  - Gripping force as a function of finger length.
  - Colored area: increased wear and tear to be expected.

- Forces and moments
  - Displays static forces and moments that can also have an effect, besides the gripping force.
  - Mr [Nm] 140
  - Mx [Nm] 175
  - My [Nm] 120
  - Fa [N] 3000

INCLUDED IN DELIVERY

- Mounting block
  - KB8-28
- Centering Disc
  - DST41000
- Flow Control Valves - with Swivel joint
  - DRV1-8X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m - Connector M8
    - MFS103KHC
- Magnetic field sensor
  - Straight Cable 5 m - Connector M8
    - MFS204KHC
- Magnetic field sensor
  - Straight Cable 0.3 m - Connector M8
    - MFS204SKHC
- Alternate proximity bracket
  - KHA6280-B-8
- Plug in connector
  - Angled Cable 5 m - Socket M8 (female)
    - KAW500
- Plug in connector
  - Straight Cable 5 m - Socket M8 (female)
    - KAG500
- Universal Jaw Aluminium
  - UB6200-B
- Inductive proximity switch
  - Cable 5 m
    - NJ8-E2
- Inductive proximity switch
  - Connector M8
    - NJ8-E2S

www.zimmer-group.com

Data, Drawings, 3-D Models, Operating Instructions
Order no. | GH6280-B | GHK6280
---|---|---
Stroke per jaw [mm] | 60 | 80
Gripping force in closing [N] | 1280 | 1280
Gripping force in opening [N] | 1100 | 1100
Retention force in case of drop in pressure [N] | 640 | -
Closing time [s] | 0.4 | 0.4
Opening time [s] | 0.4 | 0.4
Repetition accuracy +/- [mm] | 0.05 | 0.05
Operating pressure min. [bar] | 3 | 3
Operating pressure max. [bar] | 8 | 8
Operating temperature min. [°C] | 5 | 5
Operating temperature max. [°C] | 80 | 80
Air volume per cycle [cm³] | 367 | 367
Weight [kg] | 4.8 | 5.3

* All data measured at 6 bar
GHK series dimensions, see page 209
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH62100

PRODUCT SPECIFICATIONS

Gripping force diagram

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

Colored area: increased wear and tear to be expected

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>200</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>140</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>3000</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB8-28

Centering Disc
DST41000

Flow Control Valves - with Swivel joint
DRV1-8X8

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m - Connector M8
MFS103KHC

Magnetic field sensor
Angled Cable 0.5 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.5 m - Connector M8
MFS204SKHC

Alternate proximity bracket
KHA62100-B-8

Plug-in connector
Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector
Straight Cable 5 m - Socket M8 (female)
KAG500

Universal Jaw Aluminium
UB6200-B

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S
Order no.

<table>
<thead>
<tr>
<th>Stroke per jaw (mm)</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Gripping force in closing [N]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1350</td>
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</table>

<table>
<thead>
<tr>
<th>Gripping force in opening [N]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1100</td>
<td>1100</td>
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</table>

<table>
<thead>
<tr>
<th>Retention force in case of drop in pressure [N]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>640</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Closing time [s]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.45</td>
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<table>
<thead>
<tr>
<th>Opening time [s]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.45</td>
<td>0.45</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Repetition accuracy +/- [mm]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>0.05</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating pressure min. [bar]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating pressure max. [bar]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>8</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating temperature min. [°C]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating temperature max. [°C]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air volume per cycle [cm³]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
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</thead>
<tbody>
<tr>
<td>458</td>
<td>458</td>
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</table>

<table>
<thead>
<tr>
<th>Weight [kg]</th>
<th>GH62100-B</th>
<th>GHK62100</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.6</td>
<td>6.1</td>
<td></td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH62150

PRODUCT SPECIFICATIONS

Gripping force diagram

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

Colored area: increased wear and tear to be expected

Fa [N] 3000
My [Nm] 180
Mr [Nm] 180
Mx [Nm] 225
Fa [N] 3000

INCLUDED IN DELIVERY

Mounting block KB8-28
Centering Disc DST41000
Flow Control Valves - with Swivel joint DRV1-8X8

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m - Connector M8 MFS103KHC
Magnetic field sensor
Straight Cable 5 m - Connector M8 MFS204KHC
Magnetic field sensor
Straight Cable 0.3 m - Connector M8 MFS204SKHC
Magnetic field sensor
Angled Cable 0.3 m - Connector M8 MFS103SKHC
Alternate proximity bracket KHA62150-B-B
Plug-in connector
Angled Cable 5 m - SocNet M (female) KAW500
Plug-in connector
Straight Cable 5 m - SocNet M (female) KAG500
Universal Jaw Aluminium UB6200-B
Inductive proximity switch
- Cable 5 m NJ8-E2
Inductive proximity switch
- Connector M8 NJ8-E2S
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GH62150-B</th>
<th>GHK62150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1400</td>
<td>1400</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1100</td>
<td>1100</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>687</td>
<td>687</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>7.5</td>
<td>8</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209

---

**Order no.**

Order no. GH62150-B GHK62150

---

### Hoseless air feed-through

- **1** Gripper attachment
- **2** Energy supply
- **3** Fixing for gripper finger
- **4** Lubrication nipple
- **5** Integrated slot for magnetic field sensor
- **6** Fixing for mounting block
- **7** Fixing clamping bracket (KHA)
- **8** Adapter
- **9** Gripper

**A** Air connection (close)

**B** Air connection (open)

**K** Air connection, alternative (close)

**L** Air connection, alternative (open)

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Installation size GH62150 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers

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Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com  193
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6360

PRODUCT SPECIFICATIONS

Gripping force diagram

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

Colored area: increased wear and tear to be expected

| Mr [Nm] | 160 |
| Mx [Nm] | 190 |
| My [Nm] | 130 |
| Fa [N]  | 3800 |

INCLUDED IN DELIVERY

- Mounting block
  KB8-28
- Centering Disc
  DST41600
- Flow Control Valves - with Swivel joint
  DRV1-4X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  Angled Cable 5 m - Connector M8
  MFS103KHC
- Magnetic field sensor
  Angled Cable 0.3 m - Connector M8
  MFS103SKHC
- Magnetic field sensor
  Straight Cable 5 m
  MFS204KHC
- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS204SKHC
- Alternate proximity bracket
  KHA6360-B-8
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500
- Inductive proximity switch
  Cable 5 m
  NJ8-E2
- Inductive proximity switch
  Connector M8
  NJ8-E2S
- Pressure Safety Valve
  DSV1-8

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## Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>GH6360-B</th>
<th>GH6360</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1840</td>
<td>1840</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1520</td>
<td>1520</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>486</td>
<td>486</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>7</td>
<td>7.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209

---

![Diagram](image-url)

### Hoseless air feed-through

- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ④ Lubrication nipple
- ⑤ Integrated slot for magnetic field sensor
- ⑥ Fixing for mounting block
- ⑦ Fixing clamping bracket (KHA)
- ⑧ Adapter
- ⑨ Gripper
- ⑩ Air connection (close)
- ⑪ Air connection (open)
- ⑫ Air connection, alternative (close)
- ⑬ Air connection, alternative (open)

---

*Order no.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GH6360-B</th>
<th>GH6360</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHK series dimensions, see page 209</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH63100

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Force/ Moment</th>
<th>Value [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr</td>
<td>220</td>
</tr>
<tr>
<td>Mx</td>
<td>260</td>
</tr>
<tr>
<td>My</td>
<td>180</td>
</tr>
<tr>
<td>Fa</td>
<td>3800</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block: KB8-28
- Centering Disc: DST41600
- Flow Control Valves - with Swivel joint: DRV1-4X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor Angled Cable 5 m: MFS103KHC
- Magnetic field sensor Angled Cable 0.3 m - Connector MB: MFS103SKHC
- Magnetic field sensor Straight Cable 5 m: MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector MB: MFS204SKHC
- Alternate proximity bracket: KHA63100-B-8
- Plug-in connector Angled Cable 5 m - Socket MB (female): KAW500
- Plug-in connector Straight Cable 5 m - Socket MB (female): KAG500
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector MB: NJ8-E2S
- Pressure Safety Valve: DSV1-8
**Technical Data**

<table>
<thead>
<tr>
<th></th>
<th>GH63100-B</th>
<th>GHK63100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2100</td>
<td>2100</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1700</td>
<td>1700</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.65</td>
<td>0.65</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.65</td>
<td>0.65</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>809</td>
<td>809</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>9.1</td>
<td>9.6</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209

---

**Hoseless air feed-through**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Lubrication nipple
5. Integrated slot for magnetic field sensor
6. Fixing for mounting block
7. Fixing clamping bracket (KHA)
8. Adapter
9. Gripper
A. Air connection (close)
B. Air connection (open)
A. Air connection, alternative (close)
B. Air connection, alternative (open)

---

Installation size GH63100 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers
# 2-JAW PARALLEL GRIPPERS WITH LONG STROKE

## INSTALLATION SIZE GH63150

### PRODUCT SPECIFICATIONS

#### Gripping force diagram

![Gripping force diagram](image)

- **Gripping force as a function of finger length.**
- Colored area: increased wear and tear to be expected.

#### Forces and moments

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

<table>
<thead>
<tr>
<th>Force/Moment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>250</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>290</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>220</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>3800</td>
</tr>
</tbody>
</table>

### INCLUDED IN DELIVERY

- **Mounting block**
  - KB8-28
- **Centring Disc**
  - DST41600
- **Flow Control Valves - with Swivel joint**
  - DRV1-4X8

### RECOMMENDED ACCESSORIES

- **Magnetic field sensor**
  - Angled Cable 5 m
  - MFS103KHC
- **Magnetic field sensor**
  - Straight Cable 5 m - Connector M8
  - MFS204KHC
- **Inductive proximity switch**
  - Cable 5 m
  - NJ8-E2
- **Inductive proximity switch**
  - Connector M8
  - NJ8-E2S
- **Pressure Safety Valve**
  - DSV1-8
- **Plug-in connector**
  - Angled Cable 5 m - SocNet M (female)
  - KAG500
  - Straight Cable 5 m - SocNet M (female)
  - NJ8-E2
  - Connector M8
  - NJ8-E2S
- **Alternate proximity bracket**
  - KHA63150-B-8

---

*www.zimmer-group.com*
Order no. GH63150-B GHK63150

<table>
<thead>
<tr>
<th>Parameter</th>
<th>GH63150-B</th>
<th>GHK63150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2270</td>
<td>2270</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>640</td>
<td>640</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1215</td>
<td>1215</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>10.5</td>
<td>11</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
GHK series dimensions, see page 209

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH6460

PRODUCT SPECIFICATIONS

- **Gripping force diagram**
  - Gripping force as a function of finger length.

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>250</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>300</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>200</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>9000</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block: KB8-28
- Centering Disc: DST42000
- Flow Control Valves - with Swivel joint: DRV1-4X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor - Angled Cable 5 m: MFS103KHC
- Magnetic field sensor - Straight Cable 5 m: MFS204KHC
- Magnetic field sensor - Connector M8: MFS204SKHC
- Alternate proximity bracket: KHA6460-B-8
- Plug-in connector - Angled Cable 5 m: KAW500
- Plug-in connector - Straight Cable 5 m: KAG500
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S
- Pressure Safety Valve: DSV1-8

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GH6460-B</th>
<th>GHK6460</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2600</td>
<td>2600</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>710</td>
<td>710</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>10.4</td>
<td>11.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209

---

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

Hoseless air feed-through

Order no. GH6460-B GHK6460

StroNe per jaw [mm] 60 60
Gripping force in closing [N] 3000 3000
Gripping force in opening [N] 2600 2600
Retention force in case of drop in pressure [N] 0.4 0.4
Closing time [s] 0.4 0.4
Opening time [s] 0.05 0.05
Repetition accuracy +/- [mm] 0.05 0.05
Operating pressure min. [bar] 3 3
Operating pressure max. [bar] 8 8
Operating temperature min. [°C] 5 5
Operating temperature max. [°C] 80 80
Air volume per cycle [cm³] 710 710
Weight [kg] 10.4 11.5

*All data measured at 6 bar
GHK series dimensions, see page 209

---

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com

1
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH64100

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] | 300 |
| Mx [Nm] | 350 |
| My [Nm] | 250 |
| Fa [N]  | 9000 |

INCLUDED IN DELIVERY

- Mounting block KB8-28
- Centering Disc DST42000
- Flow Control Valves - with Swivel joint DRV1-4X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor Angled Cable 5 m - Connector M8 MFS103KHC
- Magnetic field sensor Straight Cable 5 m - Connector M8 MFS204KHC
- Magnetic field sensor Straight Cable 3 m - Connector M8 MFS204SKHC
- Alternate proximity bracket KHA64100-B-8
- Plug in connector Angled Cable 5m - Socket M8 (female) KAW500
- Plug in connector Straight Cable 5m - Socket M8 (female) KAG500
- Inductive proximity switch - Cable 5 m NJ8-E2
- Inductive proximity switch - Connector M8 NJ8-E2S
- Pressure Safety Valve DSV1-8

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

<table>
<thead>
<tr>
<th>Stroke per jaw [mm]</th>
<th>GH64100-B</th>
<th>GHK64100</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3200</td>
<td>3200</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2700</td>
<td>2700</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>1050</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1185</td>
<td>1185</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>13.7</td>
<td>14.8</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
GHK series dimensions, see page 209

---

**Technical Data**

1. **Gripping Attachment**
2. **Energy Supply**
3. **Fixing for Gripper Finger**
4. **Lubrication Nipple**
5. **Integrated Slot for Magnetic Field Sensor**
6. **Fixing for Mounting Block**
7. **Fixing Clamping Bracket (KHA)**
8. **Adapter**
9. **Gripper**

- **Air connection (close)**
- **Air connection (open)**
- **Air connection, alternative (close)**
- **Air connection, alternative (open)**

---

**Hoseless Air Feed-Through**

---

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH64150

PRODUCT SPECIFICATIONS

Gripping force diagram

- Gripping force as a function of finger length.
- Colored area: increased wear and tear to be expected.
- Displays static forces and moments that can also have an effect, besides the gripping force.

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>400</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>300</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>9000</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block
  - KB8-28
- Centring Disc
  - DST42000
- Flow Control Valves - with Swivel joint
  - DRV1-4X8

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m - Connector M8
    - MFS103KH
  - Straight Cable 5 m - Connector M8
    - MFS204KH
  - Alternate proximity bracket
    - KHA64150-B-8
- Plug-in connector
  - Angled Cable 5 m - Socket M8 (female)
    - KAW500
  - Straight Cable 5 m - Socket M8 (female)
    - KAG500
- Inductive proximity switch
  - Cable 5 m
    - NJ8-E2
  - Connector M8
    - NJ8-E2S
- Pressure Safety Valve
  - DSV1-8
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GH64150-B</th>
<th>GHK64150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3300</td>
<td>3300</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2780</td>
<td>2780</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>1050</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1775</td>
<td>1775</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>18.3</td>
<td>19.4</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

GHK series dimensions, see page 209

---

*Technical Data*

- **Hoseless air feed-through**
- **Gripper attachment**
- **Energy supply**
- **Fixing for gripper finger**
- **Lubrication nipple**
- **Integrated slot for magnetic field sensor**
- **Fixing for mounting block**
- **Fixing clamping bracket (KHA)**
- **Adapter**
- **Gripper**
- **Air connection (close)**
- **Air connection (open)**
- **Air connection, alternative (close)**
- **Air connection, alternative (open)**

Data, Drawings, 3-D Models, Operating Instructions  ►  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH64200

► PRODUCT SPECIFICATIONS

Gripping force diagram

- Gripping force as a function of finger length.
- Colored area: increased wear and tear to be expected

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>450</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>350</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>9000</td>
</tr>
</tbody>
</table>

► INCLUDED IN DELIVERY

- Mounting block
  - KB8-28
- Centering Disc
  - DST42000
- Flow Control Valves with Swivel Joint
  - DRV1-4X8

► RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m: MFS103KHC
  - Connector M8: MFS103SKHC
- Magnetic field sensor
  - Straight Cable 5 m: MFS204KHC
- Magnetic field sensor
  - Straight Cable 0.3 m: MFS204SKHC
- Magnetic field sensor
  - Straight Cable 3 m: MFS204SKHC
- Alternate proximity switch bracket: KHA64200-B-8
- Plug-in connector
  - Angled Cable 5 m: KAW500
  - Connector M8: KAG500
- Inductive proximity switch
  - Cable 5 m: NJ8-E2
- Inductive proximity switch
  - Connector M8: NJ8-E2S
- Pressure Safety Valve: DSV1-8

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
Order no. GH64200-B GHK64200

<table>
<thead>
<tr>
<th>Technical Data*</th>
<th>GH64200-B</th>
<th>GHK64200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3400</td>
<td>3400</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2900</td>
<td>2900</td>
</tr>
<tr>
<td>Retention force in case of drop in pressure [N]</td>
<td>1050</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
<td>2370</td>
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<tr>
<td>Weight [kg]</td>
<td>22.7</td>
<td>23.8</td>
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</tbody>
</table>

* All data measured at 6 bar
GHK series dimensions, see page 209

Technical Data:
- Hoseless air feed-through
- Technical drawings and specifications for installation size GH64200
- 2-Jaw Parallel Grippers with Long Stroke, pneumatic
- Grippers with specifications for operating conditions and mechanical data

Installation size GH64200 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
GHK SERIES

PRODUCT ADVANTAGES

- Securing the workpiece in case of drop in pressure above clamping element on the condition of a positive gripper jaw design
- Dimensions based on GH6000 series standard gripper
- Long stroke, up to 200 mm per jaw
- Stable T-slot guide, guided completely along the entire length of the housing
- For gripper fingers with a length of up to 600 mm
- Compact design, through stacked cylinder and guide
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tr>
<td>GHK6140</td>
<td>300</td>
<td>9.6</td>
<td>10.5</td>
<td>21.7</td>
<td>25</td>
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<td>58</td>
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<td>9.6</td>
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<td>37.5</td>
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<td>GHK6180</td>
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<td>14</td>
<td>39.5</td>
<td>35</td>
<td>20</td>
<td>66</td>
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<td>GHK6240</td>
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<td>14</td>
<td>39.5</td>
<td>35</td>
<td>40</td>
<td>66</td>
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<td>GHK6280</td>
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<td>39.5</td>
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<td>60</td>
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<td>35</td>
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<td>66</td>
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<td>15</td>
<td>14</td>
<td>39.5</td>
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<td>130</td>
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<td>56</td>
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<td>47.5</td>
<td>66</td>
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<td>56</td>
<td>35</td>
<td>87.5</td>
<td>66</td>
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<td>14</td>
<td>56</td>
<td>35</td>
<td>137.5</td>
<td>66</td>
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<td>GHK6460</td>
<td>1050</td>
<td>13.5</td>
<td>20.5</td>
<td>67.4</td>
<td>45</td>
<td>33.5</td>
<td>82</td>
</tr>
<tr>
<td>GHK64100</td>
<td>1050</td>
<td>13.5</td>
<td>20.5</td>
<td>67.4</td>
<td>45</td>
<td>73.5</td>
<td>82</td>
</tr>
<tr>
<td>GHK64150</td>
<td>1050</td>
<td>13.5</td>
<td>20.5</td>
<td>67.4</td>
<td>45</td>
<td>123.5</td>
<td>82</td>
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<tr>
<td>GHK64200</td>
<td>1050</td>
<td>13.5</td>
<td>20.5</td>
<td>67.4</td>
<td>45</td>
<td>173.5</td>
<td>82</td>
</tr>
</tbody>
</table>

**Air connection**

Min./max. operating pressure: 4/7 bar

**Air filter**

GHK6140

- GHK6160
- GHK6180
- GHK6240
- GHK6260
- GHK6280
- GHK62100
- GHK62150
- GHK6360
- GHK63100
- GHK63150
- GHK6460
- GHK64100
- GHK64150
- GHK64200
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
SERIES GH7000

PRODUCT ADVANTAGES

“The strong”
► High gripping force
The high gripping force allows you to handle the heaviest workpieces in your application reliably
► High moment load
The heavy-duty linear guide provides the highest possible durability for your application
► Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Switch cam**
   - for position sensing
2. **Carriage with wiper**
   - for use under extreme conditions
3. **Gripper jaw**
   - individual gripper finger mounting
4. **Precise linear guide**
   - ideal for highest transverse forces and loads
   - double secured against twisting
5. **Mounting block adjustable**
   - direct sensing of the gripper jaw position
6. **Robust, lightweight housing**
   - hard coated aluminium alloy
7. **Synchronization**
   - via rack and pinion
8. **Drive**
   - two double-acting pneumatic cylinders

**SERIES CHARACTERISTICS**

- Number of installation sizes: 2
- Stroke per jaw: 65 mm - 100 mm
- Gripping force: 8500 N - 8500 N
- Weight: 31 kg - 36 kg
- AP class: 3
- 10 million maintenance-free cycles (max.)
- Inductive sensor
- IP 64

---

Series GH7000 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ▸ www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH7665

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function finger length.

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

| Mr [Nm] | 2000 |
| My [Nm] | 2000 |
| Fa [N]  | 4000 |

INCLUDED IN DELIVERY

- Mounting block
  KB8-28
- Flow Control Valves - with Swivel joint
  DRV1-4X8

RECOMMENDED ACCESSORIES

- Inductive proximity switch - Cable 5 m
  NJ8-E2
- Inductive proximity switch - Connector M8
  NJ8-E2S
- Alternate proximity bracket
  KHA7665-8
- Plug-in connector Angled Cable 5m - Socket M8 (female)
  KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female)
  KAG500
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GH7665</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>65</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>8000</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>8500</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>1.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>1.1</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1985</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>31</td>
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</table>

*All data measured at 6 bar

---

**Hoseless air feed-through**

---

### Diagram Description

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Fixing for mounting block
5. Fixing clamping bracket (KHA)
6. Adapter
7. Gripper
8. Air connection (close)
9. Air connection (open)
10. Air connection, alternative (close)
11. Air connection, alternative (open)

---

**Installation size GH7665 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers**

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GH76100

► PRODUCT SPECIFICATIONS

► Gripping force diagram

Gripping force as a function of finger length.

Colored area: increased wear and tear to be expected

Fa [N] 4000
Mx [Nm] 2000
My [Nm] 1500
Mr [Nm] 2000

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

► Forces and moments

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>Mx [Nm]</th>
<th>My [Nm]</th>
<th>Mr [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000</td>
<td>2000</td>
<td>1500</td>
<td>2000</td>
</tr>
</tbody>
</table>

► INCLUDED IN DELIVERY

Mounting block
KB8-28
Flow Control Valves - with Swivel joint
DRV1-4X8

► RECOMMENDED ACCESSORIES

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Alternate proximity bracket
KHA76100-8

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500
Order no.  

<table>
<thead>
<tr>
<th>Specification</th>
<th>GH76100</th>
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<tr>
<td>Stroke per jaw (mm)</td>
<td>100</td>
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<tr>
<td>Gripping force in closing [N]</td>
<td>8000</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>8500</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>1.5</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>1.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>3040</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>36</td>
</tr>
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</table>

* All data measured at 6 bar
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
OVERVIEW OF SERIES
Overview of Series / 2-Jaw Parallel Grippers with Long Stroke

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com

<table>
<thead>
<tr>
<th>ELECTRICAL</th>
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<tbody>
<tr>
<td>Series GEH6000</td>
<td></td>
<td>218</td>
</tr>
<tr>
<td>Series GEH8000</td>
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<td>230</td>
</tr>
</tbody>
</table>
Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com

► PRODUCT ADVANTAGES

“The powerful”
► 60% more powerful than comparative products
Optimisation of weight and force reduces your application costs since all components can have a smaller scale
► Servo drive
Position, speed or force control in combination with a self-locking mechanism guarantee the highest functionality
► Multibus
Be flexible: CANopen, DeviceNet or PROFIBUS - You decide what harmonises the best with your system

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. Precise T-Slot guide
   - high forces and moments capacity
2. Drive
   - DC-Motor with encoder
3. Rack and pinion gear
   - synchronized movement of the gripper jaws
   - high force transfer
4. Robust, lightweight housing
   - hard coated aluminium alloy
5. Helical gear - worm gear
   - self locking in case of power drop
6. Removable centering sleeves
   - quick and economical positioning of the gripper fingers
7. Mounting and positioning
   - mounting possible from several sides for versatile positioning
8. Energy supply
   - standardized connector

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Number of installation sizes</td>
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</tr>
<tr>
<td>Stroke per jaw</td>
<td>30 mm - 80 mm</td>
</tr>
<tr>
<td>Holding force</td>
<td>1000 N - 2000 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.7 kg - 2.6 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Integrated sensing
- Mechanical self limitation
- Purged air
- IP40
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEH6030

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] | 25 |
| Mx [Nm] | 25 |
| My [Nm] | 25 |
| Fa [N]  | 500 |

INCLUDED IN DELIVERY

Centering Disc
DST40400

RECOMMENDED ACCESSORIES, SEE PAGE 228
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
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<tbody>
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<td>Drive</td>
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<tr>
<td>Retention force max. [N]</td>
<td>1000</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Weight per jaw max [kg]</td>
<td>0.3</td>
</tr>
<tr>
<td>Jaw speed in force mode max. [mm/s]</td>
<td>35</td>
</tr>
<tr>
<td>Jaw speed in positioning mode max. [mm/s]</td>
<td>55</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.7</td>
</tr>
</tbody>
</table>

![Diagram](image-url)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEH6060

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [N(\cdot)m]</th>
<th>35</th>
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</thead>
<tbody>
<tr>
<td>Mx [N(\cdot)m]</td>
<td>35</td>
</tr>
<tr>
<td>My [N(\cdot)m]</td>
<td>35</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>500</td>
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</table>

INCLUDED IN DELIVERY

Centering Disc
DST40400

RECOMMENDED ACCESSORIES, SEE PAGE 228
### Technical Data

<table>
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<tbody>
<tr>
<td><strong>Drive</strong></td>
<td>DC-Motor w. encoder</td>
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<tr>
<td>Stroke per jaw, adjustable [mm]</td>
<td>60</td>
</tr>
<tr>
<td>Retention force max. [N]</td>
<td>1000</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Weight per jaw max [kg]</td>
<td>0.3</td>
</tr>
<tr>
<td>Jaw speed in force mode max. [mm/s]</td>
<td>35</td>
</tr>
<tr>
<td>Jaw speed in positioning mode max. [mm/s]</td>
<td>55</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
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<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
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<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
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<td>Protection to IEC 60529</td>
<td>IP40</td>
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<td>Weight [kg]</td>
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</tbody>
</table>

---

**Diagram Notes:**
- 1: Gripper attachment
- 2: Energy supply (M12, 12-pole)
- 3: Fixing for gripper finger
- 4: Air purge connection option

---

Data, Drawings, 3-D Models, Operating Instructions  ➤  [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW PARALLEL GRIPPERS
INSTALLATION SIZE GEH6140

► PRODUCT SPECIFICATIONS

► Gripping force diagram

- Force higher 2000 N opening not assured reliably

- Finger length

- Movement speed = 50 mm/s

- For forces and moments that can also have an effect, besides the gripping force:

- Forces and moments:
  - Mr [Nm] = 70
  - Mx [Nm] = 80
  - My [Nm] = 60
  - Fa [N] = 1500

► INCLUDED IN DELIVERY

Centering Disc
DST70000

► RECOMMENDED ACCESSORIES, SEE PAGE 228
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GEH6140</th>
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</thead>
<tbody>
<tr>
<td>Drive</td>
<td>DC-Motor w. encoder</td>
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<tr>
<td>Stroke per jaw, adjustable [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Retention force max. [N]</td>
<td>2000</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Weight per jaw max [kg]</td>
<td>1</td>
</tr>
<tr>
<td>Jaw speed in force mode max. [mm/s]</td>
<td>50</td>
</tr>
<tr>
<td>Jaw speed in positioning mode max. [mm/s]</td>
<td>65</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.8</td>
</tr>
</tbody>
</table>

---

### Installation size GEH6140 / 2-Jaw Parallel Grippers / electric / Grippers

| Data, Drawings, 3-D Models, Operating Instructions | www.zimmer-group.com |
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] | 100 |
| Mx [Nm] | 140 |
| My [Nm] | 90  |
| Fa [N]  | 1500|

INCLUDED IN DELIVERY

Centering Disc

DST70000

RECOMMENDED ACCESSORIES, SEE PAGE 228
## Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GEH6180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>DC-Motor w. encoder</td>
</tr>
<tr>
<td>Stroke per jaw, adjustable [mm]</td>
<td>80</td>
</tr>
<tr>
<td>Retention force max. [N]</td>
<td>2000</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Weight per jaw max [kg]</td>
<td>1</td>
</tr>
<tr>
<td>Jaw speed in force mode max. [mm/s]</td>
<td>50</td>
</tr>
<tr>
<td>Jaw speed in positioning mode max. [mm/s]</td>
<td>65</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.6</td>
</tr>
</tbody>
</table>

### Drawing

1. Gripper attachment
2. Energy supply (M12, 12-pole)
3. Fixing for gripper finger
4. Air purge connection option

---

**Installation size GEH6180** / 2-Jaw Parallel Grippers / electric / Grippers

---

Data, Drawings, 3-D Models, Operating Instructions  ➤  [www.zimmer-group.com](http://www.zimmer-group.com)
## 2-JAW PARALLEL GRIPPERS
### GEH6000 SERIES ACCESSORIES

<table>
<thead>
<tr>
<th>E2</th>
<th>Order no.</th>
<th>Application type</th>
<th>Cable length [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSTE00033</td>
<td>CSTE00292</td>
<td>Fieldbus type</td>
<td>Profibus CANopen, DeviceNet</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus terminator</td>
<td>Integrated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixing types</td>
<td>Field attachable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2</th>
<th>Order no.</th>
<th>Application type</th>
<th>Cable length [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSTE00044</td>
<td>CSTE00293</td>
<td>Fieldbus type</td>
<td>Profibus CANopen, DeviceNet</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus terminator</td>
<td>must be connected externally</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixing types</td>
<td>5-pin plug/socket</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E3</th>
<th>Order no.</th>
<th>Application type</th>
<th>Cable length [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLTG00065</td>
<td></td>
<td>Programming cable, for setting parameters and commissioning</td>
<td>2.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E4</th>
<th>Order no.</th>
<th>Application type</th>
<th>Cable length [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLTG00117</td>
<td>CLTG00057</td>
<td>Supply cable, for connecting the load and logic supply</td>
<td>2.5 5</td>
</tr>
<tr>
<td>CLTG00118</td>
<td></td>
<td>Supply cable, for connecting the load and logic supply</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E5</th>
<th>Order no.</th>
<th>Application type</th>
<th>Cable length [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLTG00119</td>
<td>CLTG00060</td>
<td>Motor cable, for connecting motor and controller</td>
<td>2.5 5</td>
</tr>
<tr>
<td>CLTG00120</td>
<td></td>
<td>Motor cable, for connecting motor and controller</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>K</th>
<th>Order no.</th>
<th>Application type</th>
<th>Packaging unit [Pcs]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLTG00121</td>
<td></td>
<td>Fastening for CREG motor controller...</td>
<td>2</td>
</tr>
<tr>
<td>Order no.</td>
<td>CREG00018</td>
<td>CREG00019</td>
<td>CREG00020</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>General data</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position indicator</td>
<td>Encoder</td>
<td>Encoder</td>
<td>Encoder</td>
</tr>
<tr>
<td>Encoder input</td>
<td>RS485 / RS422, A/B signal with index impulse</td>
<td>RS485 / RS422, A/B signal with index impulse</td>
<td>RS485 / RS422, A/B signal with index impulse</td>
</tr>
<tr>
<td>Display</td>
<td>Interface with full text display via graphic LCD display</td>
<td>Interface with full text display via graphic LCD display</td>
<td>Interface with full text display via graphic LCD display</td>
</tr>
<tr>
<td>Control element</td>
<td>4 keys</td>
<td>4 keys</td>
<td>4 keys</td>
</tr>
<tr>
<td>Fieldbus type</td>
<td>Profinet</td>
<td>CANopen</td>
<td>DeviceNet</td>
</tr>
<tr>
<td>Communication profile</td>
<td>Step 7</td>
<td>DS301, DSP402</td>
<td>Device Type 0Ch</td>
</tr>
<tr>
<td>Data rate</td>
<td>12</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Fastening type</td>
<td>DIN rail, wall or surface holder</td>
<td>DIN rail, wall or surface holder</td>
<td>DIN rail, wall or surface holder</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Electrical data</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal power [W]</td>
<td>75</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Configuration interface</td>
<td>RS232 / 9600 baud</td>
<td>RS232 / 9600 baud</td>
<td>RS232 / 9600 baud</td>
</tr>
<tr>
<td><strong>Load supply</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Load supply nominal voltage [V DC]</td>
<td>24 +/- 10%</td>
<td>24 +/- 10%</td>
<td>24 +/- 10%</td>
</tr>
<tr>
<td>Load supply nominal current [A]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Load supply peak current [A]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Logic supply</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logic supply nominal voltage [V DC]</td>
<td>24 +/- 10%</td>
<td>24 +/- 10%</td>
<td>24 +/- 10%</td>
</tr>
<tr>
<td>Logic supply nominal current [A]</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Logic supply peak current [A]</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Operating and ambient conditions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP monitoring</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Current monitoring</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Voltage failure detection</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Position error monitoring</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Software end position detection</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>0 ... +40</td>
<td>0 ... +40</td>
<td>0 ... +40</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP54</td>
<td>IP54</td>
<td>IP54</td>
</tr>
</tbody>
</table>
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
SERIES GEH8000

► PRODUCT ADVANTAGES

“The strong”

► High gripping force
Using the high gripping force, you can safely handle even the heaviest workpieces

► Servo drive
Position, speed and force control in combination with a mechanical self-locking mechanism guarantee the highest functionality

► Multibus
How you stay flexible: PROFIBUS, SERCOS III, PROFINET IO, EtherNet/IP or EtherCat - You decide what harmonises best with your system

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>1</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>max. 60mm</td>
</tr>
<tr>
<td>Holding force</td>
<td>max. 3200N</td>
</tr>
<tr>
<td>Weight</td>
<td>10kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

10 million maintenance-free cycles (max.)

Integrated sensing

IP 54

Mechanical self limitation

**BENEFITS IN DETAIL**

1. **Energy supply**
   - motor cable, female
   - encoder cable, male

2. **Removable centering sleeves**
   - quick and economical positioning of the gripper fingers

3. **Drive**
   - AC servo motor

4. **Gripper jaw**
   - hardened steel
   - individual gripper finger mounting

5. **Precise linear guide**
   - high forces and moments capacity
   - guide wagon with wiper for harsh environments

6. **Mounting and positioning**

7. **Robust, lightweight housing**
   - hard coated aluminium alloy

8. **Synchronization**
   - via rack and pinion

**SERIES CHARACTERISTICS**

- 2-Jaw Parallel Grippers with Long Stroke / electric / Grippers

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com
2-JAW PARALLEL GRIPPERS WITH LONG STROKE
SERIES GEH8000

PRODUCT SPECIFICATIONS

Gripping force diagram

Gripping force diagram

INCLUDED IN DELIVERY

Commissioning CD
CD0004

Centering Disc
DST41600

Forces and moments

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

Mr 220
Mx 220
My 950

RECOMMENDED ACCESSORIES

Indra Works Drive Start Up CD
ZUBHCSS

Drive controller Profibus
ZUBHCS

Drive control unit SER-COS III, PROFINET IO, EtherCAT
ZUBHCSME

Programming cable
ZUBHCSKAP01

Power cable 5 m
ZUBHCSKAL05

Power cable 10 m
ZUBHCSKAL10

Power cable 25 m
ZUBHCSKAL25

Encoder cable 5 m
ZUBHCSKAG05

Encoder cable 10 m
ZUBHCSKAG10

Encoder cable 25 m
ZUBHCSKAG25

www.zimmer-group.com Data, Drawings, 3-D Models, Operating Instructions
## Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GEH8660</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>AC-Servomotor</td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>60</td>
</tr>
<tr>
<td>Max. retention force (at 100% opening usage) [N]</td>
<td>3200</td>
</tr>
<tr>
<td>Retention force min. [N]</td>
<td>200</td>
</tr>
<tr>
<td>Self limitation</td>
<td>gear rack / worm drive</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Rack / worm gear</td>
</tr>
<tr>
<td>Closing time / Opening time at maximum stroke [s]</td>
<td>1.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP54</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>10</td>
</tr>
</tbody>
</table>

### Drive

| Load gear output revolution | 49 |
| Load gear input revolution | 375 |
| Feed constant [mm/rev] | 3.1415 |
3-JAW CONCENTRIC GRIPPERS
OVERVIEW OF SERIES
### PNEUMATIC

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGD800</td>
<td>236</td>
</tr>
<tr>
<td>GD</td>
<td>254</td>
</tr>
<tr>
<td>GD300</td>
<td>262</td>
</tr>
<tr>
<td>GPD5000</td>
<td>282</td>
</tr>
<tr>
<td>GD1700</td>
<td>320</td>
</tr>
</tbody>
</table>
3-JAW CONCENTRIC GRIPPERS
SERIES MGD800

► PRODUCT ADVANTAGES

“The superior”

► Gripper jaws may be almost 100% longer in comparison to the benchmark
The highest force and torque measurement enables flexible for maximum dynamics

► Best price/performance ratio
Reduces your investment costs and speeds the ROI for your application

► Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

► THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGD803N</th>
</tr>
</thead>
<tbody>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
</tr>
</tbody>
</table>

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
**BENEFITS IN DETAIL**

1. **Removable centering sleeves**
   - quick and economical positioning of the gripper fingers

2. **Sensing slot**
   - mounting and positioning of magnetic field sensors

3. **Robust, lightweight housing**
   - hard coated aluminium alloy

4. **Energy supply**
   - possible from several sides

5. **Wedge hook mechanism**
   - synchronized the movement of the gripper jaws

6. **Integrated gripping force safety device**
   - spring integrated into cylinder as energy storage (from size 800 upwards)

7. **Position sensing**
   - permanent magnet for direct monitoring of piston movement

8. **Precise T-Slot guide**
   - high forces and moments capacity

**SERIES CHARACTERISTICS**

- Number of installation sizes: 8
- Stroke per jaw: 1 mm - 12 mm
- Gripping force: 34 N - 1420 N
- Weight: 0.025 kg - 2 kg
- AP class: 2
- 10 million maintenance-free cycles (max.)
- Spring closing C
- Magnetic field sensor
- IP40
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE MGD801

PRODUCT SPECIFICATIONS

Gripping force diagram

Colored area: increased wear and tear to be expected

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>2</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>4</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>58</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST80200

RECOMMENDED ACCESSORIES

Angled Fittings - Barb Style Connection
WVM3

Straight Fittings - Barb Style Connection
GVM3

Quick Exhaust Valve
DEVO4

Pressure Safety Valve
DSV1-8

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGD801N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>1</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>30</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>34</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.01</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.025</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Technical Data Diagram](attachment:image)

- Gripper attachment
- Energy supply
- Fixing for gripper finger
- Adapter
- Gripper
- Air connection (close)
- Air connection (open)
- Air connection, alternative (close)
- Air connection, alternative (open)

---

*Installation size MGD801 / 3-Jaw Concentric Grippers / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions

www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE MGD802

PRODUCT SPECIFICATIONS

Gripping force diagram
[N] Gripping force as a function finger length.

Colored area: increased wear and tear to be expected

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

Mr [Nm] 4
Mx [Nm] 4
My [Nm] 6
Fa [N] 100

INCLUDED IN DELIVERY

Centering Disc
DST80200

RECOMMENDED ACCESSORIES

Angled Fittings - Barb Style Connection
WVM3

Straight Fittings - Barb Style Connection
GVM3

Quick Exhaust Valve
DEV04

Pressure Safety Valve
DSV1-8

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGD802N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>2</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>40</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>45</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.3</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE MGD803

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] | 5   |
| My [Nm] | 5   |
| Fa [N]  | 155 |

INCLUDED IN DELIVERY

Centering Disc
DST80320

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Angled Fittings - Barb Style Connection
WVM3

Straight Fittings - Barb Style Connection
GVM3

Quick Exhaust Valve
DEV04

Pressure Safety Valve
DSV1-8
### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MGD803N</th>
<th>MGD803NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>75</td>
<td>110</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.08</td>
<td>0.115</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 Adapter  
6 Gripper  
A Air connection (close)  
B Air connection (open)  
C Air connection, alternative (close)  
D Air connection, alternative (open)  

---

**Installation size MGD803 / 3-Jaw Concentric Grippers / pneumatic / Grippers**

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**Data, Drawings, 3-D Models, Operating Instructions**: [www.zimmer-group.com](http://www.zimmer-group.com)

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**www.zimmer-group.com**
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE MGD804

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>8</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>12</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>250</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY
Centering Disc
DST06510

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m - Connector M8
MFS103KHC
MFS103SKHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204KHC
MFS204SKHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204KHC
MFS204SKHC

Angled Fittings - Barb Style Connection
WVM3

Straight Fittings - Barb Style Connection
GVM3

Quick Exhaust Valve
DEV04

Pressure Safety Valve
DSV1-8
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MGD804N</td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>4</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>125</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>140</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2.9</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.14</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

![Diagram of the device](image-url)
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE MGD806

PRODUCT SPECIFICATIONS

Gripping force diagram
- Gripping force as a function finger length.

Colored area: increased wear and tear to be expected

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

| Mr [Nm] | 12 |
| Mx [Nm] | 12 |
| My [Nm] | 18 |
| Fa [N]  | 420 |

INCLUDED IN DELIVERY

Centering Disc
DST40400

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  Angled Cable 5 m - Connector M8
  MFS103KHC

- Magnetic field sensor
  Straight Cable 5 m - Connector M8
  MFS204KHC

- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS204SKHC

- Magnetic field sensor
  Angled Cable 0.3 m - Connector M8
  MFS103SKHC

- Straight Fittings - Quick Connect Style
  GVM5

- Quick Exhaust Valve
  DEV04

- Pressure Safety Valve
  DSV1-8
<table>
<thead>
<tr>
<th></th>
<th>MGD806N</th>
<th>MGD806NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>240</td>
<td>295</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>265</td>
<td>-</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
<td>55</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.04</td>
<td>0.06</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.26</td>
<td>0.35</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

- **Hoseless air feed-through**
- 1. Gripper attachment
- 2. Energy supply
- 3. Fixing for gripper finger
- 4. Integrated slot for magnetic field sensor
- 5. Adapter
- 6. Gripper
- A. Air connection (close)
- B. Air connection (open)
- A'. Air connection, alternative (close)
- B'. Air connection, alternative (open)

---

**Order no.**

<table>
<thead>
<tr>
<th></th>
<th>MGD806N</th>
<th>MGD806NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>StroNe per jaw [mm]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>*ripping force in closing [N]</td>
<td>240</td>
<td>295</td>
</tr>
<tr>
<td>*ripping force in opening [N]</td>
<td>265</td>
<td>-</td>
</tr>
<tr>
<td>*ripping force secured by spring min. [N]</td>
<td>-</td>
<td>55</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.04</td>
<td>0.06</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.26</td>
<td>0.35</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE MGD808

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] | 18 |
| Mx [Nm] | 19 |
| My [Nm] | 29 |
| Fa [N]  | 660 |

INCLUDED IN DELIVERY

Centering Disc
DST40600

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m - Connector MB
MFS103KHC

Magnetic field sensor
Straight Cable 5 m - Connector MB
MFS204KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector MB
MFS103SHC

Magnetic field sensor
Straight Cable 0.3 m - Connector MB
MFS204SHC

Straight Fittings - Quick Connect Style
GVM5

Quick Exhaust Valve
DEV04

Pressure Safety Valve
DSV1-8

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>MGD808N</th>
<th>MGD808NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order no.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke per jaw [mm]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>415</td>
<td>560</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
<td>145</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.09</td>
<td>0.08</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.09</td>
<td>0.13</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.47</td>
<td>0.65</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Installation size MGD808 / 3-Jaw Concentric Grippers / pneumatic / Grippers**

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
### PRODUCT SPECIFICATIONS

**Gripping force diagram**
- Gripping force as a function of finger length.
- Colored area: increased wear and tear to be expected.

**Forces and moments**
- Displays static forces and moments that can also have an effect, besides the gripping force.
- $M_x [Nm] = 27$
- $M_y [Nm] = 29$
- $F_a [N] = 960$

### INCLUDED IN DELIVERY

- **Centering Disc**
  - DST07540

### RECOMMENDED ACCESSORIES

- **Magnetic field sensor**
  - Angled Cable 5 m - Connector M8: MFS103KHC
  - Straight Cable 0.3 m - Connector M8: MFS204KHC

- **Magnetic field sensor**
  - Angled Cable 3 m - Connector M: MFS103SKHC
  - Straight Cable 3 m - Connector M: MFS204SKHC

- **Straight Fittings - Quick Connect Style**
  - GVM5

- **Quick Exhaust Valve**
  - DEV04

- **Pressure Safety Valve**
  - DSV1-8
## Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGD810N</th>
<th>MGD810NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>740</td>
<td>920</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>790</td>
<td>-</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
<td>180</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
<td>0.15</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.98</td>
<td>1.16</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Installation size MGD810 / 3-Jaw Concentric Grippers / pneumatic / Grippers**

---

**Order no.**

- **NC**

---

**Data, Drawings, 3-D Models, Operating Instructions**

- www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE MGD812

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Force/Moment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>41</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>45</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>65</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>1500</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST41000

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m  -  Connector M8
MFS103KHC

Magnetic field sensor
Straight Cable 5 m  -  Connector M8
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m  -  Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GV1-8X6

Quick Exhaust Valve
DEV06

Pressure Safety Valve
DSV1-8
<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGD812N</th>
<th>MGD812NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1130</td>
<td>1420</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
<td>290</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.12</td>
<td>0.17</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>69</td>
<td>97</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.67</td>
<td>2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

- **Hoseless air feed-through**

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**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
3-JAW CONCENTRIC GRIPPERS
SERIES GD

► PRODUCT ADVANTAGES

“The flexible”

► Largest stroke in small installation space
You can cover numerous application variants with just one gripper type

► Gripper jaws included in the delivery
Reduces your design effort, manufacturing costs and setup time

► Smooth stroke configuration
Using the optionally available stroke limit, you can customise the stroke to your application, even stroke sensing is possible

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Gripping movement on rotation**
   - for various workpiece diameters
2. **Robust, lightweight housing**
   - hard coated aluminium alloy
3. **Planetary transmission**
   - synchronized the movement of the gripper jaws
4. **Standard pins serve as gripper jaw**
5. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning
6. **Drive**
   - double-acting pneumatic cylinder
7. **Energy supply**
   - possible radial and axial
8. **Shaft projection**
   - for accessory assembly e.g. sensors

**SERIES CHARACTERISTICS**

- Number of installation sizes: 3
- Stroke per jaw: 120° - 180°
- Gripping force: 24 N - 530 N
- Weight: 0.08 kg - 2 kg
- AP class: 2

- 10 million maintenance-free cycles (max.)
- Inductive sensor
- IP 40
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD1

PRODUCT SPECIFICATIONS

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>0.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>0.1</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>10</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style GVM5
- Rotation limiter DB1-B
- Inductive proximity switch - Cable 5 m NJ3-E2-02
- Quick Exhaust Valve DEV04
- Pressure Safety Valve DSV1-B
- Plug-in connector customizable Straight - Connector M8 S8-G-3
- Plug-in connector customizable Straight - Connector M12 S12-G-3

www.zimmer-group.com
<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD1-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>130</td>
</tr>
<tr>
<td>Grip diameter in closing min. [mm]</td>
<td>3</td>
</tr>
<tr>
<td>Grip diameter in closing max. [mm]</td>
<td>22</td>
</tr>
<tr>
<td>Grip diameter in opening min. [mm]</td>
<td>7</td>
</tr>
<tr>
<td>Grip diameter in opening max. [mm]</td>
<td>26</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>0.12</td>
</tr>
<tr>
<td>Gripping moment in opening [Nm]</td>
<td>0.12</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2.8</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.08</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Technical Data**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Direction of rotation
5. Air connection (close)
6. Air connection (open)
7. Air connection, alternative (close)
8. Air connection, alternative (open)
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD10

PRODUCT SPECIFICATIONS

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

- Mr [N·m] 1
- Mx [N·m] 1
- My [N·m] 0.5
- Fa [N] 30

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GVM5
- Rotation limiter
  DB10
- Inductive proximity switch - Cable 5 m
  NJ12-E2
- Inductive proximity switch - Connector M8
  NJ12-E2S
- Stop Stroke Adjustment Screws
  AI-M8X1-38
- Stop Stroke Adjustment Screws
  AI-M8X1-53
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500
- Quick Exhaust Valve
  DEV04
- Pressure Safety Valve
  DSV1-8

www.zimmer-group.com

Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>180</td>
</tr>
<tr>
<td>Grip diameter in closing min. [mm]</td>
<td>5</td>
</tr>
<tr>
<td>Grip diameter in closing max. [mm]</td>
<td>45</td>
</tr>
<tr>
<td>Grip diameter in opening min. [mm]</td>
<td>11</td>
</tr>
<tr>
<td>Grip diameter in opening max. [mm]</td>
<td>51</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>1</td>
</tr>
<tr>
<td>Gripping moment in opening [Nm]</td>
<td>1</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.07</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.07</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>20</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.35</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

[Diagram of installation size GD10 with 3-Jaw Concentric Grippers]

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Direction of rotation
5. Air connection (close)
6. Air connection (open)
7. Air connection, alternative (close)
8. Air connection, alternative (open)

---

Visit [www.zimmer-group.com](http://www.zimmer-group.com) for Data, Drawings, 3D Models, Operating Instructions.
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD50

PRODUCT SPECIFICATIONS

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

<table>
<thead>
<tr>
<th>Mr [N·m]</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [N·m]</td>
<td>5</td>
</tr>
<tr>
<td>My [N·m]</td>
<td>4</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>100</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- **Straight Fittings - Quick Connect Style**
  GV1-8X8

- **Rotation limiter**
  DB50

- **Inductive proximity switch**
  - Cable 5 m
  - Connector M8
  - NJ12-E2
  - NJ12-E2S

- **Stop Stroke Adjustment Screws**
  AI-M8X1-38

- **Stop Stroke Adjustment Screws**
  AI-M8X1-53

- **Plug-in connector Angled Cable 5m - Socket M8 (female)**
  KAW500

- **Plug-in connector Straight Cable 5m - Socket M8 (female)**
  KAG500

- **Inquiry for interim position**
  GF50

- **Quick Exhaust Valve**
  DEV08

www.zimmer-group.com - Data, Drawings, 3-D Models, Operating Instructions
**Order no. GD50**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [*]</td>
<td>120</td>
</tr>
<tr>
<td>Grip diameter in closing min. [mm]</td>
<td>9</td>
</tr>
<tr>
<td>Grip diameter in closing max. [mm]</td>
<td>62</td>
</tr>
<tr>
<td>Grip diameter in opening min. [mm]</td>
<td>21</td>
</tr>
<tr>
<td>Grip diameter in opening max. [mm]</td>
<td>74</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>9</td>
</tr>
<tr>
<td>Gripping moment in opening [Nm]</td>
<td>9</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.09</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.09</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>102</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
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 love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com

HOW TO ORDER CORRECTLY

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

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

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BENEFITS IN DETAIL

1. Robust, lightweight housing
   - hard coated aluminium 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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>9</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>3 mm - 30 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>300 N - 34700 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.16 kg - 24 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Spring closing C
- Inductive sensor
- Spring opening O
- IP 40
- Magnetic field sensor
- Purged air

Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD303

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>9</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>12</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>500</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB3-07

Centering Disc
DST40400

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Magnetic field sensor
MFS103KHC

Magnetic field sensor
MFS103SKHC

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAG500

Inductive proximity switch
NJ3-E2

Inductive Proximity Switch
NJ3-E2SK

Universal Jaw Aluminium
UB303

Universal Jaw Steel
UB303ST

Pressure Safety Valve
DSV1-8

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<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td>GD303N-C</td>
<td>GD303NC-C</td>
</tr>
<tr>
<td>Stroke per jaw (mm)</td>
<td>3</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>200</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>230</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>3.5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.13</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD304

**PRODUCT SPECIFICATIONS**

![Gripping force diagram](image)

- **Gripping force diagram**
  - Gripping force as a function of finger length.

![Forces and moments](image)

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>15</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>15</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>700</td>
</tr>
</tbody>
</table>

**INCLUDED IN DELIVERY**

- Mounting block KB3-08
- Centering Disc DST40400

**RECOMMENDED ACCESSORIES**

- Straight Fittings - Quick Connect Style GVM5
- Magnetic field sensor Angled Cable 5 m MFS103KHC
- Magnetic field sensor Angled Cable 0.3 m Connector M8 MFS103S5KHC
- Plug-in connector Angled Cable 5 m - Socket M8 (female) KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female) KAG500
- Inductive proximity switch - Cable 5 m NJ3-E2
- Inductive Proximity Switch Cable 0.3 m - Connector M8 NJ3-E2SK
- Universal Jaw Aluminium UB304
- Universal Jaw Steel UB304ST
- Pressure piece N / S ADS304N-S

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### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD304N-C</th>
<th>GD304NC-C</th>
<th>GD304NO-C</th>
<th>GD304S-C</th>
<th>GD304SC-C</th>
<th>GD304SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td></td>
<td>450</td>
<td>650</td>
<td>-</td>
<td>1000</td>
<td>1400</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td></td>
<td>500</td>
<td>-</td>
<td>700</td>
<td>1100</td>
<td>-</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td></td>
<td>-</td>
<td>200</td>
<td>200</td>
<td>-</td>
<td>400</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td></td>
<td>0.025</td>
<td>0.02</td>
<td>0.03</td>
<td>0.025</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td></td>
<td>0.025</td>
<td>0.03</td>
<td>0.02</td>
<td>0.025</td>
<td>0.03</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td></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></td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td></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></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></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></td>
<td>9.2</td>
<td>19.2</td>
<td>19.2</td>
<td>9.2</td>
<td>19.2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td></td>
<td>0.22</td>
<td>0.28</td>
<td>0.28</td>
<td>0.22</td>
<td>0.28</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**NC / NO / SC / SO**

- **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*
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD306

PRODUCT SPECIFICATIONS

Gripping force diagram
- Gripping force as a function of finger length.

Colored area: increased wear and tear to be expected

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>50</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>45</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>1200</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block KB3-39
- Centering Disc DST40600

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style GVM5
- Magnetic field sensor Angled Cable 5 m - Connector M8 MFS103KHC
- Magnetic field sensor Angled Cable 0.3 m - Connector M8 MFS103SKHC
- Magnetic field sensor Straight Cable 5 m - Connector M8 MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8 MFS204SKHC
- Plug-in connector Angled Cable 5 m - Socket M8 (female) KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female) KAG500
- Inductive proximity switch - Cable 5 m NJ8-E2
- Universal Jaw Aluminium UB306
<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD306N-C</th>
<th>GD306NC-C</th>
<th>GD306NO-C</th>
<th>GD306S-C</th>
<th>GD306SC-C</th>
<th>GD306SO-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>750</td>
<td>1000</td>
<td>-</td>
<td>1600</td>
<td>2150</td>
<td>2300</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>-</td>
<td>-</td>
<td>1050</td>
<td>1750</td>
<td>-</td>
<td>2300</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
<td>250</td>
<td>250</td>
<td>-</td>
<td>550</td>
<td>550</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.03</td>
<td>0.03</td>
<td>0.05</td>
<td>0.03</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.03</td>
<td>0.05</td>
<td>0.05</td>
<td>0.03</td>
<td>0.05</td>
<td>0.03</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>21.5</td>
<td>48</td>
<td>48</td>
<td>21.5</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.5</td>
<td>0.65</td>
<td>0.65</td>
<td>0.5</td>
<td>0.65</td>
<td>0.65</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD308

► 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] 50
Mx [Nm] 80
My [Nm] 60
Fa [N] 1800

► INCLUDED IN DELIVERY

Mounting block
KB8-30

Centering Disc
BDST40800

► RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-8X6

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103S8KC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204S8KC

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Universal Jaw Aluminium
UB308
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GD308N-C</th>
<th>GD308NC-C</th>
<th>GD308NO-C</th>
<th>GD308SC-C</th>
<th>GD308SO-C</th>
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<tr>
<td><strong>Order no.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Stroke per jaw [mm]</strong></td>
<td>8</td>
<td>8</td>
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<tr>
<td><strong>Gripping force in closing [N]</strong></td>
<td>1200</td>
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<td>3800</td>
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<td><strong>Gripping force in opening [N]</strong></td>
<td>-</td>
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<td>2800</td>
<td>-</td>
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<td><strong>Gripping force secured by spring min. [N]</strong></td>
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<td>800</td>
<td>-</td>
<td>1200</td>
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<td><strong>Closing time [s]</strong></td>
<td>0.05</td>
<td>0.03</td>
<td>0.06</td>
<td>0.05</td>
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<td>0.03</td>
<td>0.05</td>
<td>0.06</td>
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<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
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<td><strong>Operating pressure min. [bar]</strong></td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Operating pressure max. [bar]</strong></td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Operating temperature min. [°C]</strong></td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td><strong>Operating temperature max. [°C]</strong></td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
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<tr>
<td><strong>Air volume per cycle [cm³]</strong></td>
<td>47</td>
<td>108</td>
<td>108</td>
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<td>108</td>
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<td><strong>Weight [kg]</strong></td>
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<td>1.2</td>
<td>1.2</td>
<td>0.85</td>
<td>1.2</td>
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</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 GD308 / 3-Jaw Concentric Grippers / pneumatic / Grippers**

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com

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3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD310

**PRODUCT SPECIFICATIONS**

- **Gripping force diagram**
  - Gripping force as a function of finger length.
  - Displays static forces and moments that can also have an effect, besides the gripping force.
  - Colored area: increased wear and tear to be expected

<table>
<thead>
<tr>
<th>GD310SC-C</th>
<th>GD310SO-C</th>
<th>GD310S-C</th>
<th>GD310NC-C</th>
<th>GD310NO-C</th>
<th>GD310N-C</th>
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</thead>
<tbody>
<tr>
<td>S</td>
<td>N</td>
<td>S</td>
<td>N</td>
<td>S</td>
<td>N</td>
</tr>
</tbody>
</table>

**Forces and moments**

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

**INCLUDED IN DELIVERY**

- Mounting block: KB8-31
- Centering Disc: DST41000

**RECOMMENDED ACCESSORIES**

- Alternate proximity bracket: KHA310-B-8
- Straight Fittings - Quick Connect Style: GV1-8X6
- Magnetic field sensor - Angled Cable 5 m: MFS103KHC
- Magnetic field sensor - Straight Cable 5 m: MFS103SKHC
- Magnetic field sensor - Connector M8: MFS204KHC

- Magnetic field sensor - Connector M6: MFS204SKHC
- Plug-in connector - Angled Cable 5 m - Socket M8 (female): KAG500
- Plug-in connector - Straight Cable 5 m - Socket M8 (female): KAW500
- Inductive proximity switch - Connector M8: NJ8-E2S
- Inductive proximity switch - Connector M8: NJ8-E2S

For more information, visit www.zimmer-group.com
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD310NC-C</th>
<th>GD310NC-C</th>
<th>GD310NO-C</th>
<th>GD310S-C</th>
<th>GD310SC-C</th>
<th>GD310SO-C</th>
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</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>
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<tr>
<td>Gripping force in closing [N]</td>
<td>2000</td>
<td>2800</td>
<td>-</td>
<td>4400</td>
<td>6200</td>
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<tr>
<td>Gripping force in opening [N]</td>
<td>2100</td>
<td>-</td>
<td>2900</td>
<td>4600</td>
<td>-</td>
<td>6400</td>
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<tr>
<td>Gripping force secured by spring min. [N]</td>
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<td>800</td>
<td>800</td>
<td>-</td>
<td>1800</td>
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<tr>
<td>Closing time [s]</td>
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<td>0.2</td>
<td>0.1</td>
<td>0.07</td>
<td>0.2</td>
</tr>
<tr>
<td>Opening time [s]</td>
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<td>0.2</td>
<td>0.07</td>
<td>0.1</td>
<td>0.2</td>
<td>0.07</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
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<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>
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<td>4</td>
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<td>Operating pressure max. [bar]</td>
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<td>8</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Operating temperature min. [°C]</td>
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<td>5</td>
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<td>5</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
<td>100</td>
<td>220</td>
<td>220</td>
<td>100</td>
<td>220</td>
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<tr>
<td>Weight [kg]</td>
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<td>2.2</td>
<td>1.6</td>
<td>2.2</td>
<td>2.2</td>
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</tbody>
</table>

*All data measured at 6 bar

---

### Hoseless air feed-through

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 purgee connection option
7. Adapter
8. Gripper
9. Air connection (close)
10. Air connection (open)
11. Air connection, alternative (close)
12. Air connection, alternative (open)
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD312

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>Mx [Nm]</th>
<th>My [Nm]</th>
<th>Mr [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>3200</td>
<td>120</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB8-32

Centering Disc
DST41000

RECOMMENDED ACCESSORIES

Alternate proximity bracket
KHA312-B-8

Straight Fittings - Quick Connect Style
GV1-8X6

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0,3 m - Connector M6
MFS103SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Inductive proximity switch - Connector M6
NJ8-E2

Inductive proximity switch - Cable 5 m
NJ8-E2S

www.zimmer-group.com

Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD312NC-C</th>
<th>GD312NO-C</th>
<th>GD312SC-C</th>
<th>GD312SO-C</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>6</td>
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<tr>
<td>Gripping force in closing [N]</td>
<td>3500</td>
<td>4150</td>
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<tr>
<td>Gripping force in opening [N]</td>
<td>3600</td>
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<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>-</td>
<td>650</td>
<td>650</td>
<td>-</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.2</td>
<td>0.15</td>
<td>0.35</td>
<td>0.2</td>
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<td>Opening time [s]</td>
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<td>0.15</td>
<td>0.2</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
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<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
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<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
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<tr>
<td>Air volume per cycle [cm³]</td>
<td>190</td>
<td>420</td>
<td>420</td>
<td>190</td>
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<tr>
<td>Weight [kg]</td>
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<td>3.8</td>
<td>3.8</td>
<td>2.7</td>
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*All data measured at 6 bar

---

### Installation size GD312 / 3-Jaw Concentric Grippers / pneumatic / Grippers

- **N / S**

---

### Hoseless air feed-through

- **N**
- **S**

---

### Technical Drawing

- **1** Gripper attachment
- **2** Energy supply
- **3** Fixing for gripper finger
- **4** Fixing for mounting block
- **5** Fixing clamping bracket (KHA)
- **6** Air purge connection option
- **7** Adapter
- **8** Gripper
- **A** Air connection (close)
- **B** Air connection (open)
- **C** Air connection, alternative (close)
- **D** Air connection, alternative (open)
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD316

PRODUCT SPECIFICATIONS

Gripping force diagram

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

| Mr [N·m] | 140 |
| My [N·m] | 160 |
| Fa [N]   | 5000 |

INCLUDED IN DELIVERY

Mounting block
KB8-33

Centering Disc
DST41600

RECOMMENDED ACCESSORIES

Alternate proximity bracket
KHA316-B-8

Straight Fittings - Quick Connect Style
GV1-8X6

Magnetic field sensor
MFS103KHC

Magnetic field sensor
MFS103SKHC

Magnetic field sensor
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Angled Cable 0.3 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 0.3 m - Socket M8 (female)
KAG500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

www.zimmer-group.com
### Order no.

<table>
<thead>
<tr>
<th>Stroke per jaw [mm]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<tr>
<td>16</td>
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<table>
<thead>
<tr>
<th>Gripping force in closing [N]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<td>6600</td>
<td>-</td>
<td>14000</td>
<td>18700</td>
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<table>
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<th>Gripping force in opening [N]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<td>2100</td>
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<td>-</td>
<td>4700</td>
<td>4700</td>
<td>-</td>
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<table>
<thead>
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<th>Closing time [s]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<tbody>
<tr>
<td>0.25</td>
<td>0.2</td>
<td>0.4</td>
<td>0.25</td>
<td>0.2</td>
<td>0.4</td>
<td>0.2</td>
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<table>
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<tr>
<th>Opening time [s]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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</thead>
<tbody>
<tr>
<td>0.25</td>
<td>0.4</td>
<td>0.2</td>
<td>0.25</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
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<table>
<thead>
<tr>
<th>Repetition accuracy +/- [mm]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
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<td>0.05</td>
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<table>
<thead>
<tr>
<th>Operating pressure min. [bar]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<td>2</td>
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<td>2</td>
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<th>Operating pressure max. [bar]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
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<th>GD316S-C</th>
<th>GD316SC-C</th>
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<table>
<thead>
<tr>
<th>Operating temperature min. [°C]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<td>5</td>
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<thead>
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<th>Operating temperature max. [°C]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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</table>

<table>
<thead>
<tr>
<th>Air volume per cycle [cm³]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
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<tr>
<td>470</td>
<td>960</td>
<td>960</td>
<td>470</td>
<td>960</td>
<td>960</td>
<td>960</td>
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<table>
<thead>
<tr>
<th>Weight [kg]</th>
<th>GD316N-C</th>
<th>GD316NC-C</th>
<th>GD316NO-C</th>
<th>GD316S-C</th>
<th>GD316SC-C</th>
<th>GD316SO-C</th>
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<td>8</td>
<td>5.1</td>
<td>8</td>
<td>8</td>
<td>8</td>
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</tbody>
</table>

*All data measured at 6 bar

### Technical Data*

#### Installation size GD316

1. **NC / NO / SC / SO**

#### Data, Drawings, 3-D Models, Operating Instructions

[www.zimmer-group.com](http://www.zimmer-group.com)

---

*Hoseless air feed-through*

[Diagram of hoseless air feed-through]

- **Gripper attachment**
- **Energy supply**
- **Fixing for gripper finger**
- **Fixing for mounting block**
- **Fixing clamping bracket (KHA)**
- **Air purge connection option**
- **Adapter**
- **Gripper**
- **Air connection (close)**
- **Air connection (open)**
- **Air connection, alternative (close)**
- **Air connection, alternative (open)**

---

### Other Technical Specifications

- **Closing time [s]**
- **Opening time [s]**
- **Repetition accuracy +/- [mm]**
- **Operating pressure min. [bar]**
- **Operating pressure max. [bar]**
- **Operating temperature min. [°C]**
- **Operating temperature max. [°C]**
- **Air volume per cycle [cm³]**

---

*ripping force in closing [N]*

6500 8600 - 14000 18700 -

*ripping force in opening [N]*

6600 - 8700 14400 - 19100

*ripping force secured by spring min. [N]*

- 2100 2100 - 4700 4700

Closing time [s]

0.25 0.2 0.4 0.25 0.2 0.4

Opening time [s]

0.25 0.4 0.2 0.25 0.4 0.2

Repetition accuracy +/- [mm]

0.05 0.05 0.05 0.05 0.05 0.05

Operating pressure min. [bar]

2 4 4 2 4 4

Operating pressure max. [bar]

8 8 8 8 8 8

Operating temperature min. [°C]

5 5 5 5 5 5

Operating temperature max. [°C]

80 80 80 80 80 80

Air volume per cycle [cm³]

470 960 960 470 960 960

Weight [kg]

5.1 8 8 5.1 8 8

---

*All data measured at 6 bar*
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD320

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]  | 170 |
| Mx [Nm]  | 180 |
| My [Nm]  | 220 |
| Fa [N]   | 7000 |

INCLUDED IN DELIVERY

Mounting block
KB8-34

Centering Disc
DST42000

RECOMMENDED ACCESSORIES

Alternate proximity bracket
KHA320-B-8

Straight Fittings - Quick Connect Style
GV1-1X8

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAW500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GD320N-C</th>
<th>GD320S-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>8200</td>
<td>18150</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>8450</td>
<td>18700</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.35</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.05</td>
<td>0.05</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>825</td>
<td>825</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>9.6</td>
<td>9.6</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

### Hoseless air feed-through

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Fixing for mounting block
5. Fixing clamping bracket (KHA)
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)

---

Data, Drawings, 3-D Models, Operating Instructions ▶️ www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GD330

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>275</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>300</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>9000</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block: KB8-34
- Centering Disc: DST43000

RECOMMENDED ACCESSORIES

- Alternate proximity bracket: KHA330-B-8
- Straight Fittings - Quick Connect Style: GV1-4X8
- Magnetic field sensor Angled Cable 5 m: MFS103KHC
- Magnetic field sensor Angled Cable 0.3 m - Connector M8: MFS103SKHC
- Magnetic field sensor Straight Cable 5 m: MFS204KHC
- Magnetic field sensor Straight Cable 3 m - Connector M: MFS204SKHC
- Magnetic field sensor Straight Cable 5 m - Connector M: MFS204SKHC
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female): KAG500
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S

www.zimmer-group.com ♦ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD330N-C</th>
<th>GD330S-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>15300</td>
<td>34150</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>15550</td>
<td>34700</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2270</td>
<td>2270</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram](image-url)

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Fixing for mounting block
5. Fixing clamping bracket (KHA)
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

---

Data, Drawings, 3-D Models, Operating Instructions  ▶️  www.zimmer-group.com  281
3-JAW CONCENTRIC GRIPPERS
SERIES GPD5000

► PRODUCT ADVANTAGES

“The Universal One”
► Up to 30% more gripping force than the benchmark
► 10% more static forces and moments than the benchmark
► Gripper fingers up to 10% longer than the benchmark
► Gripper fingers weight up to 15% higher than the benchmark
► Sealed guide IP64 / Protector version IP67 (with purged air)
► Protected against corrosion
► Up to 30 million cycles without maintenance

► THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY
► The product order numbers are arranged according to this diagram:

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis version</td>
<td>N</td>
</tr>
<tr>
<td>High force</td>
<td>S</td>
</tr>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
</tr>
<tr>
<td>For internal gripping, self-locking, spring opening</td>
<td>O</td>
</tr>
<tr>
<td>Protector version IP67 for use in adverse environments (with purged air)</td>
<td>P</td>
</tr>
<tr>
<td>Temperature-resistant version to 130 °C</td>
<td>T</td>
</tr>
</tbody>
</table>
**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>9</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>3 mm - 30 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>310 N - 32400 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.14 kg - 27.5 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>5</td>
</tr>
</tbody>
</table>

**BENEFITS IN DETAIL**

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

2. **Gripper jaw**
   - DLC coated to protect against corrosion
   - Gripper fingers mounted using removable centring sleeves
   - Lubricated for life via incorporated lubrication slots

3. **Mounting block**
   - Mounting for inductive proximity switch

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

5. **Sensing slot**
   - Mounting and positioning of magnetic field sensors

6. **Mounting and positioning**
   - Alternatively, on several sides for customized mounting
   - Pneumatic and electrical versions identical apart from height

7. **Drive**
   - Double-acting pneumatic rotor cylinder

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

9. **Dual lip seal**
   - IP64 and up to IP67 (with purged air) for Protector version
   - Prevents grease from being squeezed out, increasing service life
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5003

PRODUCT SPECIFICATIONS

Gripping force as a function of finger length.

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

Mx [Nm] 14
My [Nm] 13
Fa [N] 550

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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<tbody>
<tr>
<td>GPD5003N</td>
<td>GPD5003NC</td>
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<tr>
<td>Stroke per jaw [mm]</td>
<td>2.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>310</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>335</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.015</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.015</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.12</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>65</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>4.2</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.14</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Order no.</th>
<th>Technical Data - Protector Version</th>
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</thead>
<tbody>
<tr>
<td>GPD5003NP</td>
<td>GPD5003NCP</td>
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<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.18</td>
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</table>

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data - High Temperature Version</th>
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</thead>
<tbody>
<tr>
<td>GPD5003NT</td>
<td>GPD5003NCT</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
**with purged air
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5003

INCLUDED IN DELIVERY

Centering Disc
DST05510

www.zimmer-group.com  ▶  Data, Drawings, 3-D Models, Operating Instructions
**RECOMMENDED ACCESSORIES**

- Universal jaw aluminium: UB5003AL
- Universal jaw steel: UB5003ST
- Pressure piece N/S: ADS5003-01
- Pressure piece NO/SC/SO: ADS5003-02
- Rubber Coated Tape Smooth: KF50G

- Rubber Coated Tape Knobbed: KF50N
- Magnetic field sensor Angled Cable 0.3 m - Connector M8: MFS103SKHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8: MFS204SKHC
- 2 Position-Sensor Cable 0.3 m - Connector M8: MFSP2SKHC-01
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500

- Plug-in connector Straight Cable 5 m - Socket M8 (female): KAG500
- Plug-in connector customisable Straight - Connector M12: S12-G-3
- Angled Fittings - Barb Style Connection: WVM3
- Straight Fittings - Barb Style Connection: GVM3
- Pressure Safety Valve: DSV1-8

**TECHNICAL DRAWINGS ACCESSORIES**

- One universal jaw required for each gripper jaw

- Gripper is fastened via the pressure piece

Data, Drawings, 3-D Models, Operating Instructions  ▸ www.zimmer-group.com
# 3-JAW CONCENTRIC GRIPPERS
## INSTALLATION SIZE GPD5004

### PRODUCT SPECIFICATIONS

**Gripping force diagram**
Gripping force as a function of finger length.

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

### TECHNICAL DATA

#### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5004N</th>
<th>GPD5004NC</th>
<th>GPD5004NO</th>
<th>GPD5004S</th>
<th>GPD5004SC</th>
<th>GPD5004SO</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>460</td>
<td>650</td>
<td>1010</td>
<td>1430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>500</td>
<td>690</td>
<td>1100</td>
<td>1520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>190</td>
<td>190</td>
<td>420</td>
<td>420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.025</td>
<td>0.018</td>
<td>0.028</td>
<td>0.025</td>
<td>0.018</td>
<td>0.028</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.025</td>
<td>0.028</td>
<td>0.018</td>
<td>0.025</td>
<td>0.028</td>
<td>0.018</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>80</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>70</td>
<td>70</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<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>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>11</td>
<td>21</td>
<td>21</td>
<td>11</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.27</td>
<td>0.33</td>
<td>0.33</td>
<td>0.27</td>
<td>0.33</td>
<td>0.33</td>
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#### Technical Data - Protector Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5004NP</th>
<th>GPD5004NCP</th>
<th>GPD5004NOP</th>
<th>GPD5004SOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.35</td>
<td>0.41</td>
<td>0.41</td>
<td>0.41</td>
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</tbody>
</table>

#### Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5004NT</th>
<th>GPD5004NCT</th>
<th>GPD5004NOT</th>
<th>GPD5004ST</th>
<th>GPD5004SCT</th>
<th>GPD5004SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

---

*All data measured at 6 bar
** with purged air
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5004

INCLUDED IN DELIVERY

Centering Disc
015761
**RECOMMENDED ACCESSORIES**

1. Universal jaw aluminium
   - UB5004AL
2. Universal jaw steel
   - UB5004ST
3. Pressure piece N / S
   - ADS5004-01
4. Pressure piece NC / NO / SC / SO
   - ADS5004-02
5. Changeable jaw, loose-part set
   - WB5004L
6. Changeable jaw, fix-part
   - WB5004F
7. Magnetic field sensor Angled Cable 0.3 m - Connector M8
   - MFS103SKHC
8. Magnetic field sensor Straight Cable 0.3 m - Connector M8
   - MFS204SKHC
9. 2 Position-Sensor Cable 0.3 m - Connector M8
   - MFSP2SKHC-01
10. Plug-in connector Angled Cable 3 m - Connector M (female)
    - KAW500
11. Plug-in connector Straight Cable 3 m - Connector M (female)
    - KAG500
12. Plug-in connector customisable Straight - Connector M12
    - S12-G-3
13. Angled Fittings - Quick Connect Style
    - WVM5
14. Straight Fittings - Quick Connect Style
    - GVM5
15. Pressure Safety Valve
    - DSV1-8

**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.
- Gripper is fastened via the pressure piece.

Data, Drawings, 3-D Models, Operating Instructions | www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5006

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function finger length.

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

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

TECHNICAL DATA

**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPDS006N</th>
<th>GPDS006NC</th>
<th>GPDS006NO</th>
<th>GPDS006S</th>
<th>GPDS006SC</th>
<th>GPDS006SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Gripping force in closing [N]</td>
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<td>1020</td>
<td>1620</td>
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<tr>
<td>Gripping force in opening [N]</td>
<td>800</td>
<td>1080</td>
<td>1750</td>
<td>2370</td>
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<tr>
<td>Gripping force secured by spring min. [N]</td>
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<td>280</td>
<td>620</td>
<td>620</td>
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<tr>
<td>Closing time [s]</td>
<td>0.028</td>
<td>0.018</td>
<td>0.038</td>
<td>0.028</td>
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</tr>
<tr>
<td>Opening time [s]</td>
<td>0.028</td>
<td>0.038</td>
<td>0.018</td>
<td>0.028</td>
<td>0.038</td>
<td>0.018</td>
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<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
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<td>Length of the gripper fingers max. [mm]</td>
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<td>90</td>
<td>90</td>
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<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<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>8</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
<td>22</td>
<td>43</td>
<td>43</td>
<td>22</td>
<td>43</td>
<td>43</td>
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<tr>
<td>Protection to IEC 60529</td>
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<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
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<tr>
<td>Weight [kg]</td>
<td>0.48</td>
<td>0.58</td>
<td>0.58</td>
<td>0.48</td>
<td>0.58</td>
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**Technical Data - Protector Version**

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<tr>
<th>Order no.</th>
<th>GPDS006NP</th>
<th>GPDS006NCP</th>
<th>GPDS006NOP</th>
<th>GPDS006SOP</th>
<th>GPDS006SCP</th>
<th>GPDS006SOP</th>
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<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67*</td>
<td>IP67**</td>
<td>IP67***</td>
<td>IP67***</td>
<td>IP67**</td>
<td>IP67**</td>
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<td>Weight [kg]</td>
<td>0.61</td>
<td>0.71</td>
<td>0.71</td>
<td>0.61</td>
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**Technical Data - High Temperature Version**

<table>
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<tr>
<th>Order no.</th>
<th>GPDS006NT</th>
<th>GPDS006NCT</th>
<th>GPDS006NOT</th>
<th>GPDS006ST</th>
<th>GPDS006SCT</th>
<th>GPDS006SOT</th>
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</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
** with purged air
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5006

► INCLUDED IN DELIVERY

1 Centering Disc
024230
RECOMMENDED ACCESSORIES

Universal jaw aluminium
UB5006AL

Universal jaw steel
UB5006ST

Pressure piece N / S
ADS5006-01

Pressure piece NC / NO / SC / SO
ADS5006-02

Changeable jaw, loose-part set
WB5006L

Changeable jaw, fixed part
WB5006F

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

2 Position-Sensor Cable 0.3 m - Connector M8
MFSP2SKHC-01

Inductive Proximity Switch Cable 0.3 m - Connector M8
NJ4-E2SK-01

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Angled Fittings - Quick Connect Style
WVM5

Pressure Safety Valve
DSV1-8

Compensation module N / S
ZUB5006DNS

Compensation module NC / NO / SC / SO
ZUB5006DCO

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

Compensation module for compensating for the height differences between the pneumatic and electric gripper version

Gripper is fastened via the pressure piece
PRODUCT SPECIFICATIONS

Gripping force diagram

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

TECHNICAL DATA

Technical Data*

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<thead>
<tr>
<th>Order no.</th>
<th>GPD5008N</th>
<th>GPD5008NC</th>
<th>GPD5008NO</th>
<th>GPD5008S</th>
<th>GPD5008SC</th>
<th>GPD5008SO</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Gripping force in closing [N]</td>
<td>1260</td>
<td>1690</td>
<td>2780</td>
<td>3730</td>
<td>3910</td>
<td>3910</td>
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<tr>
<td>Gripping force in opening [N]</td>
<td>1340</td>
<td>1770</td>
<td>2960</td>
<td>3910</td>
<td>3910</td>
<td>3910</td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>0.048</td>
<td>0.035</td>
<td>0.055</td>
<td>0.048</td>
<td>0.035</td>
<td>0.055</td>
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<tr>
<td>Closing time [s]</td>
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<td>430</td>
<td>950</td>
<td>950</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Opening time [s]</td>
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<td>0.055</td>
<td>0.035</td>
<td>0.048</td>
<td>0.055</td>
<td>0.035</td>
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<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
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<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>125</td>
<td>115</td>
<td>115</td>
<td>115</td>
<td>105</td>
<td>105</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
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<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
<td>51</td>
<td>90</td>
<td>90</td>
<td>51</td>
<td>90</td>
<td>90</td>
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<tr>
<td>Protection to IEC 60529</td>
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<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
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<tr>
<td>Weight [kg]</td>
<td>0.83</td>
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Technical Data - Protector Version

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<th>GPD5008NP</th>
<th>GPD5008NCP</th>
<th>GPD5008NOP</th>
<th>GPD5008SOP</th>
<th>GPD5008SCP</th>
<th>GPD5008SOP</th>
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</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
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<td>1.2</td>
<td>1.2</td>
<td>1.03</td>
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Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5008NT</th>
<th>GPD5008NCT</th>
<th>GPD5008NOT</th>
<th>GPD5008ST</th>
<th>GPD5008SCT</th>
<th>GPD5008SOT</th>
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</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar
** with purged air
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5008

► INCLUDED IN DELIVERY

1. Centering Disc
   024231

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
RECOMMENDED ACCESSORIES

Universal jaw aluminium
UB5008AL

Universal jaw steel
UB5008ST

Pressure piece N / S
ADS5008-01

Pressure piece NC / NO / SC / SO
ADS5008-02

Changeable jaw, loose-part set
WB5008L

Changeable jaw, fixed part
WB5008F

Magnetic field sensor Angled
MFS103SKHC

Magnetic field sensor Straight
MFS204SKHC

2 Position Sensor Cable 0.3 m - Connector M8
MFSP2SKHC-01

Inductive Proximity Switch 0.3 m - Connector M8
NJ4-E2SK-01

Plug-in connector Straight Cable 0.5 m - Socket M8 (female)
KAG500

Angled Fittings - Quick Connect Style
WM5

Pressure Safety Valve
DSV1-8

Compensation module N / S
ZUB5008DNS

Compensation module NC / NO / SC / SO
ZUB5008DCO

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

Compensation module for compensating for the height differences between the pneumatic and electric gripper version

Gripper is fastened via the pressure piece
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5010

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function finger length.

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

TECHNICAL DATA

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<th>Order no.</th>
<th>GPD5010N</th>
<th>GPD5010NC</th>
<th>GPD5010NO</th>
<th>GPD5010S</th>
<th>GPD5010SC</th>
<th>GPD5010SO</th>
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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>
<td>5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2290</td>
<td>3140</td>
<td>5050</td>
<td>6930</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2400</td>
<td>3250</td>
<td>5280</td>
<td>7160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>850</td>
<td>850</td>
<td>1880</td>
<td>1880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.095</td>
<td>0.095</td>
<td>0.095</td>
<td>0.095</td>
<td>0.19</td>
<td>0.19</td>
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<tr>
<td>Opening time [s]</td>
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<td>0.19</td>
<td>0.095</td>
<td>0.095</td>
<td>0.19</td>
<td>0.095</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
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<tr>
<td>Length of the gripper fingers max. [mm]</td>
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<td>145</td>
<td>145</td>
<td>130</td>
<td>130</td>
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<tr>
<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>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>100</td>
<td>200</td>
<td>200</td>
<td>100</td>
<td>200</td>
<td>200</td>
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<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>100</td>
<td>200</td>
<td>200</td>
<td>100</td>
<td>200</td>
<td>200</td>
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<tr>
<td>Protection to IEC 60529</td>
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<td>IP65</td>
<td>IP65</td>
<td>IP65</td>
<td>IP65</td>
<td>IP65</td>
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<tr>
<td>Weight [kg]</td>
<td>1.45</td>
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<table>
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<tr>
<th>Order no.</th>
<th>GPD5010NP</th>
<th>GPD5010NCP</th>
<th>GPD5010NOP</th>
<th>GPD5010SOP</th>
<th>GPD5010SCP</th>
<th>GPD5010SOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67 **</td>
<td>IP67 **</td>
<td>IP67 **</td>
<td>IP67 **</td>
<td>IP67 **</td>
<td>IP67 **</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.8</td>
<td>2.23</td>
<td>2.23</td>
<td>1.8</td>
<td>2.23</td>
<td>2.23</td>
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</table>

Order no.
Operating temperature [°C]
-10 ... +130
-10 ... +130
-10 ... +130
-10 ... +130
-10 ... +130
-10 ... +130

*All data measured at 6 bar
** with purged air
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5010

INCLUDED IN DELIVERY

Centering Disc
018187
RECOMMENDED ACCESSORIES

1. Universal jaw aluminium
   UB5010AL

2. Universal jaw steel
   UB5010ST

3. Pressure piece N / S
   ADS5010-01

4. Pressure piece NC / NO / SC / SO
   ADS5010-02

5. Changeable jaw, loose-part set
   WB5010L

6. Changeable jaw, fixed part
   WB5010F

7. Magnetic field sensor Angled Cable 0.3 m - Connector M8
   MFS103SKHC

8. Magnetic field sensor Straight Cable 0.3 m - Connector M8
   MFS204SKHC

9. 2 Position Sensor Cable 0.3 m - Connector M8
   MFSP2SKHC-01

10. Inductive Proximity Switch Cable 0.3 m - Connector M8
    NJ4-E2SK-01

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.

Compensation module for compensating for the height differences between the pneumatic and electric gripper version.

Gripper is fastened via the pressure piece.
# 3-JAW CONCENTRIC GRIPPERS

## INSTALLATION SIZE GPD5013

### PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Gripping force diagram</th>
<th>Forces and moments</th>
</tr>
</thead>
</table>

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

### TECHNICAL DATA

#### Technical Data*

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<th>GPD5013NC</th>
<th>GPD5013NO</th>
<th>GPD5013S</th>
<th>GPD5013SC</th>
<th>GPD5013SO</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>6</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Gripping force in closing [N]</td>
<td>3770</td>
<td>5060</td>
<td>8310</td>
<td>11160</td>
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<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
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<td>8600</td>
<td>11450</td>
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<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
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<td>1290</td>
<td>2850</td>
<td>2850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.19</td>
<td>0.15</td>
<td>0.25</td>
<td>0.19</td>
<td>0.15</td>
<td>0.25</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.19</td>
<td>0.25</td>
<td>0.15</td>
<td>0.19</td>
<td>0.25</td>
<td>0.15</td>
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<tr>
<td>Weight per jaw max. [kg]</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
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<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>200</td>
<td>185</td>
<td>185</td>
<td>185</td>
<td>170</td>
<td>170</td>
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<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>230</td>
<td>415</td>
<td>415</td>
<td>230</td>
<td>415</td>
<td>415</td>
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<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.6</td>
<td>3.5</td>
<td>3.5</td>
<td>2.6</td>
<td>3.5</td>
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#### Technical Data - Protector Version

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<tr>
<th>Order no.</th>
<th>GPD5013NP</th>
<th>GPD5013NCP</th>
<th>GPD5013NOP</th>
<th>GPD5013SP</th>
<th>GPD5013SCP</th>
<th>GPD5013SOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>3.15</td>
<td>4.05</td>
<td>4.05</td>
<td>3.15</td>
<td>4.05</td>
<td>4.05</td>
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</table>

#### Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5013NT</th>
<th>GPD5013NCT</th>
<th>GPD5013NOT</th>
<th>GPD5013ST</th>
<th>GPD5013SCT</th>
<th>GPD5013SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

** with purged air
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5013

► INCLUDED IN DELIVERY

Centering Disc
018187
RECOMMENDED ACCESSORIES

1. Universal jaw aluminium
   UB5013AL
2. Universal jaw steel
   UB5013ST
3. Pressure piece N / S
   ADS5013-01
4. Pressure piece NC / NO / SC / SO
   ADS5013-02
5. Changeable jaw, loose-part set
   WB5013L
6. Changeable jaw, fix-part
   WB5013F
7. Magnetic field sensor Angled Cable 0.3 m - Connector M8
   MFS103SKHC
8. Magnetic field sensor Straight Cable 0.3 m - Connector M8
   MFS204SKHC
9. 2 Position Sensor Cable 0.3 m - Connector M8
   MFSP2SKHC-01
10. Inductive proximity switch - Connector M8
    NJ8-E2S
11. Plug-in connector Angled Cable 5 m - Socket M8 (female)
    KAW500
12. Plug-in connector Straight Cable 5 m - Socket M8 (female)
    KAG500
13. Angled Fittings - Quick Connect Style
    WV1-8X6
14. Straight Fittings - Quick Connect Style
    GV1-8X6
15. Pressure Safety Valve
    DSV1-8

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 fix part are needed.

Gripper is fastened via the pressure piece.
## PRODUCT SPECIFICATIONS

### Gripping force diagram

Gripping force as a function finger length.

### Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>145</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>195</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>185</td>
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<tr>
<td>Fa [N]</td>
<td>5200</td>
</tr>
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## TECHNICAL DATA

### Technical Data*

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<th>GPD5016N</th>
<th>GPD5016NC</th>
<th>GPD5016NO</th>
<th>GPD5016S</th>
<th>GPD5016SC</th>
<th>GPD5016SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>6870</td>
<td>9240</td>
<td>14700</td>
<td>19780</td>
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<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>7120</td>
<td>9490</td>
<td>15250</td>
<td>20330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>2370</td>
<td>2370</td>
<td>5080</td>
<td>5080</td>
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</tr>
<tr>
<td>Closing time [s]</td>
<td>0.4</td>
<td>0.3</td>
<td>0.5</td>
<td>0.4</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
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<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>245</td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>215</td>
<td>215</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
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<tr>
<td>Operating pressure max. [bar]</td>
<td>10 ... +90</td>
<td>-10 ... -90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
<td>-10 ... +90</td>
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<td>Air volume per cycle [cm³]</td>
<td>525</td>
<td>925</td>
<td>925</td>
<td>925</td>
<td>925</td>
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<td>Protection to IEC 60529</td>
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<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
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<tr>
<td>Weight [kg]</td>
<td>5.7</td>
<td>7.5</td>
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<td>7.5</td>
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### Technical Data - Protector Version

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<th>GPD5016NOP</th>
<th>GPD5016SP</th>
<th>GPD5016SCP</th>
<th>GPD5016SOP</th>
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</thead>
<tbody>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>6.8</td>
<td>8.6</td>
<td>8.6</td>
<td>6.8</td>
<td>8.6</td>
<td>8.6</td>
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### Technical Data - High Temperature Version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5016NT</th>
<th>GPD5016NCT</th>
<th>GPD5016NOT</th>
<th>GPD5016ST</th>
<th>GPD5016SCT</th>
<th>GPD5016SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
<td>-10 ... +130</td>
</tr>
</tbody>
</table>

---

*All data measured at 6 bar

** with purged air
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5016

INCLUDED IN DELIVERY

Centering Disc
019387
**RECOMMENDED ACCESSORIES**

1. Universal jaw aluminium
   - UB5016AL
2. Universal jaw steel
   - UB5016ST
3. Changeable jaw, loose-part set
   - WB5016L
4. Changeable jaw, fixed part
   - WB5016F
5. Magnetic field sensor angled
   - MFS103SKHC
6. Magnetic field sensor straight
   - MFS204SKHC
7. 2 Position-Sensor Cable
   - MFSP2SKHC-01
8. Inductive proximity switch
   - NJ8-E2S

**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.
- Gripper is fastened via the pressure piece.

Data, Drawings, 3-D Models, Operating Instructions  ▶️ www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5025

PRODUCT SPECIFICATIONS

Gripping force diagram

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

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GPD5025N</th>
<th>GPD5025NC</th>
<th>GPD5025NO</th>
<th>GPD5025S</th>
<th>GPD5025SC</th>
<th>GPD5025SO</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>8430</td>
<td>11560</td>
<td>16240</td>
<td>22270</td>
<td>22270</td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>8730</td>
<td>11860</td>
<td>16820</td>
<td>22850</td>
<td>22850</td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>3130</td>
<td>3130</td>
<td>6030</td>
<td>6030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.6</td>
<td>0.6</td>
<td>1.0</td>
<td>0.6</td>
<td>0.6</td>
<td>1.0</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.6</td>
<td>1.0</td>
<td>0.6</td>
<td>0.6</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>310</td>
<td>265</td>
<td>265</td>
<td>265</td>
<td>220</td>
<td>220</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>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1025</td>
<td>1750</td>
<td>1750</td>
<td>1025</td>
<td>1750</td>
<td>1750</td>
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<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>11.8</td>
<td>15.4</td>
<td>15.4</td>
<td>11.8</td>
<td>15.4</td>
<td>15.4</td>
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<table>
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<tr>
<th>Order no.</th>
<th>GPD5025NP</th>
<th>GPD5025NCP</th>
<th>GPD5025NOP</th>
<th>GPD5025SOP</th>
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<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>14</td>
<td>17.6</td>
<td>17.6</td>
<td>14</td>
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<table>
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<tr>
<th>Order no.</th>
<th>GPD5025NT</th>
<th>GPD5025NCT</th>
<th>GPD5025NOT</th>
<th>GPD5025SST</th>
<th>GPD5025SCT</th>
<th>GPD5025SOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
** with purged air

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
**TECHNICAL DRAWINGS**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Integrated slot for magnetic field sensor
5. Mounting block
6. Air purge connection option
7. Attachment option for customer-specific fittings
8. Adapter

---

**Protector version**

---

**Hoseless air feed-through**

---

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5025

INCLUDED IN DELIVERY

1. Centering Disc
030529
**RECOMMENDED ACCESSORIES**

1. Universal jaw aluminium - UB5025AL
2. Universal jaw steel - UB5025ST
3. Changeable jaw, loose-part set - WB5025L
4. Changeable jaw, fix part - WB5025F
5. Magnetic field sensor - MFS103SKHC
6. Magnetic field sensor - MFS204SKHC
7. Pressure piece - ADS5025-01
8. Pressure piece - ADS5025-02
9. 2 Position-Sensor Cable - MFSP2SKHC-01
10. Magnetic field sensor Straight Cable - Connector M8
11. Magnetic field sensor Angled Cable - Connector M8
12. Pressure Safety Valve - KAW500
13. Pressure Safety Valve - KAG500
14. Pressure Safety Valve - WV1-8X8
15. Pressure Safety Valve - GV1-8X8
16. Inductive proximity switch - Connector M8
17. Plug-in connector Angled Cable - Connector M8 (female)
18. Plug-in connector Straight Cable - Connector M8 (female)
19. Plug-in connector - Angled Connect Style
20. Plug-in connector - Straight Connect Style
21. Plug-in connector - 4uicN Connect Style

**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.

Gripper is fastened via the pressure piece.
# 3-JAW CONCENTRIC GRIPPERS
## INSTALLATION SIZE GPD5030

### PRODUCT SPECIFICATIONS

#### Gripping force diagram

Gripping force as a function of finger length.

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>290</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>310</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>9500</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA

#### Technical Data

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<th>GPD5030NO</th>
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<th>GPD5030SC</th>
<th>GPD5030SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>12130</td>
<td>16560</td>
<td>23150</td>
<td>31620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>12540</td>
<td>16970</td>
<td>23930</td>
<td>32400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripping force secured by spring min. [N]</td>
<td>4430</td>
<td>4430</td>
<td>8470</td>
<td>8470</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>1.13</td>
<td>1.0</td>
<td>1.9</td>
<td>1.13</td>
<td>1.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>1.13</td>
<td>1.9</td>
<td>1.0</td>
<td>1.13</td>
<td>1.9</td>
<td>1.0</td>
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<tr>
<td>Weight per jaw max. [kg]</td>
<td>9.5</td>
<td>9.5</td>
<td>9.5</td>
<td>9.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>355</td>
<td>305</td>
<td>305</td>
<td>305</td>
<td>260</td>
<td>260</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></td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
<td>-10...+90</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
<td>1780</td>
<td>3000</td>
<td>3000</td>
<td>1780</td>
<td>3000</td>
<td>3000</td>
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<td>Protection to IEC 60529</td>
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<td>IP64</td>
<td>IP64</td>
<td>IP64</td>
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<tr>
<td>Weight [kg]</td>
<td>21</td>
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<td>27.5</td>
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<td>27.5</td>
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#### Technical Data - Protector Version

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<th>GPD5030NOP</th>
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<th>GPD5030SOP</th>
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<tr>
<td>Protection to IEC 60529</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
<td>IP67**</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>24</td>
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<td>30.5</td>
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#### Technical Data - High Temperature Version

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<tr>
<th>Order no.</th>
<th>GPD5030NT</th>
<th>GPD5030NCT</th>
<th>GPD5030NOT</th>
<th>GPD5030ST</th>
<th>GPD5030SCT</th>
<th>GPD5030SOT</th>
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</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
<td>-10...+130</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
**with purged air
TECHNICAL DRAWINGS

NC / NO / SC / SO

- Gripper attachment
- Energy supply
- Fixing for gripper finger
- Integrated slot for magnetic field sensor
- Mounting block
- Air purge connection option
- Attachment option for customer-specific fittings
- Adapter

Protector version

N / S

- Gripper
- Clamp for sensor
- Switch cam adjustment
- Air connection (close)
- Air connection (open)
- Air connection, alternative (close)
- Air connection, alternative (open)

Hoseless air feed-through
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GPD5030

INCLUDED IN DELIVERY

Centering Disc
030529
RECOMMENDED ACCESSORIES

1. Universal jaw aluminium: UB5030AL
2. Universal jaw steel: UB5030ST
3. Changeable jaw, loose-part set: WB5030L
4. Changeable jaw, fix-part: WB5030F
5. Magnetic field sensor: MFS103SKHC
6. Magnetic field sensor: MFS204SKHC
7. Magnetic field sensor: MFS205SKHC
8. Inductive proximity switch: NJ8-E2S
9. Plug-in connector angled cable: KAW500
10. Plug-in connector straight cable: KAG500
11. Angled fittings - quick connect style: WV1-4X8
12. Straight fittings - quick connect style: GV1-4X8
13. Pressure safety valve: DSV1-8

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.

Gripper fastened via the pressure piece.

Data, Drawings, 3-D Models, Operating Instructions  

www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS
SERIES GD1700

► BENEFITS IN DETAIL

1. Sealed and precise square guide for / harsh environmental conditions
   - high forces and moments capacity
2. Robust, lightweight housing
   - hard coated aluminium alloy
3. Wedge hook mechanism
   - synchronized the movement of the gripper jaws
   - high force transfer
4. Integrated gripping force safety device
   - spring integrated into cylinder as energy storage
   - optional in designs C and O
5. Permanent magnet
   - installed in piston chamber as indicator for magnetic field sensor (up to GD1708-B)
6. Energy supply
   - possible from several sides
7. Drive
   - double-acting pneumatic cylinder
8. Removable centering sleeves
   - quick and economical positioning of the gripper fingers

► TECHNICAL DATA*

| Number of installation sizes | 7 |
| Stroke per jaw                | 4 mm - 20 mm |
| Gripping force                | 280 N - 5250 N |
| Weight                        | 0.35 kg - 13.4 kg |

*Further information is available online

► FOR NEW DESIGNS, USE THE SUCCESSOR SERIES, THE GPD5000

"The Universal One"

► Up to 30% more gripping force than the benchmark
► 10% more static forces and moments than the benchmark
► Gripper fingers up to 10% longer than the benchmark
► Gripper fingers weight up to 15% higher than the benchmark
► Sealed guide IP64 / Protector version IP67 (with purged air)
► Protected against corrosion
► Up to 30 million cycles without maintenance
3-JAW CONCENTRIC GRIPPERS
OVERVIEW OF SERIES
## ELECTRICAL

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GED1300</td>
<td>324</td>
</tr>
<tr>
<td>GED5000</td>
<td>330</td>
</tr>
<tr>
<td>GED1500</td>
<td>344</td>
</tr>
</tbody>
</table>
3-JAW CONCENTRIC GRIPPERS
SERIES GED1300

PRODUCT ADVANTAGES

“The robust”

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

► Integrated position sensing
You can detect the gripper status safely via the motor current using your control system

► The simplest activation
The included control unit is controlled easily via plus and minus buttons, while you can optionally adjust the gripping force using the potentiometer

THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Removable centering sleeves**  
   - quick and economical positioning of the gripper fingers
2. **Gripper jaw**  
   - hardened steel  
   - individual gripper finger mounting
3. **Positively driven curve disc**  
   - synchronized movement of the gripper jaws  
   - high force transfer  
   - rapid stroke and force stroke (version with 6 mm stroke per jaw)
4. **Drive**  
   - electric drive by 24 VDC step motor
5. **Guide**  
   - precise T-Slot guide for high forces and moments capacity
6. **Position sensing**  
   - measured at the end of stroke via power increase on the motor
7. **Energy supply**  
   - standardized interface M8 round plug connection signal control line (use only cable without diode)
8. **Robust, lightweight housing**  
   - hard coated aluminium alloy

**SERIES CHARACTERISTICS**

**Technical Information**

All information just a click away at: www.zimmer-group.com  
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.  
Quick, clear and always up-to-date.
PRODUCT SPECIFICATIONS

Gripping force diagram

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>5</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>4</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>120</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST02900

Control
ELEGR01

RECOMMENDED ACCESSORIES

Plug-in connector Angled
Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight
Cable 5m - Socket M8 (female)
KAG500

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
## Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GED1302</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw (mm)</td>
<td>2</td>
</tr>
<tr>
<td>Gripping force in closing (adjustable) max. [N]</td>
<td>140</td>
</tr>
<tr>
<td>Gripping force in opening (adjustable) max. [N]</td>
<td>140</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.2</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.2</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Voltage [V] *</td>
<td>24</td>
</tr>
<tr>
<td>Max. current regulable by potentiometer [mA]</td>
<td>140</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.25</td>
</tr>
</tbody>
</table>

* 12 volt voltage on request

---

**Diagram:**
- **1** Gripper attachment
- **2** Energy supply
- **3** Fixing for gripper finger

---

Data, Drawings, 3-D Models, Operating Instructions  ➤ [www.zimmer-group.com](http://www.zimmer-group.com)  327
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GED1306

PRODUCT SPECIFICATIONS

Gripping force diagram
- Gripping force as a function of finger length.
- Displays static forces and moments that can also have an effect, besides the gripping force.

Forces and moments
- Mr [Nm] = 30
- Mx [Nm] = 25
- My [Nm] = 20
- Fa [N] = 800

INCLUDED IN DELIVERY

Centering Disc
- BDST40800

Control
- ELEGR04

RECOMMENDED ACCESSORIES

Plug-in connector Angled Cable 5m - Socket M8 (female)
- KAWS00

Plug-in connector Straight Cable 5m - Socket M8 (female)
- KAG500
### Technical Data

<table>
<thead>
<tr>
<th></th>
<th>GED1306C</th>
<th>GED1306O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Gripping force in closing (adjustable) max. [N]</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td>Gripping force in opening (adjustable) max. [N]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Voltage [V] *</td>
<td>210</td>
<td>210</td>
</tr>
<tr>
<td>Max. current regulable by potentiometer [mA]</td>
<td>210</td>
<td>210</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
<td>IP40</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.7</td>
<td>1.7</td>
</tr>
</tbody>
</table>

* 12 volt voltage on request
3-JAW CONCENTRIC GRIPPERS
SERIES GED5000

► PRODUCT ADVANTAGES

“ALL in ONE”
► Approximately the same gripping force as a comparable pneumatic gripper
► Mechanical self limitation in case of power drop
► Same connection hole patterns as a comparable pneumatic gripper
► Plug and play – single-cable solution, supports incredibly easy control using I/O signals
► Integrated ACM control module - option of configuring gripping force, travel time and 3 switching points
► Protected from corrosion and sealed in accordance with IP64
► Brushless DC motor – up to 30 million cycles without maintenance

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

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

2. **Gripper jaw**  
   - DLC coated to protect against corrosion  
   - Gripper fingers mounted using removable centring sleeves  
   - Lubricated for life via incorporated lubrication slots

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

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

5. **Mounting and positioning**  
   - Alternatively, on several sides for customized mounting  
   - Pneumatic and electrical versions identical apart from height

6. **BLDC motor**  
   - Wear-resistant brushless DC motor

7. **Advanced control module**  
   - Integrated control module with single-cable solution  
   - Gripping force, travel time and query programmable via the control panel on the housing

8. **Drive train**  
   - Combination of trapezoidal spindle and gear  
   - Durable and robust

**SERIES CHARACTERISTICS**

- **Number of installation sizes**: 3  
- **Stroke per jaw**: 6 mm - 10 mm  
- **Gripping force**: 540 N - 1900 N  
- **Weight**: 1.09 kg - 2.33 kg  
- **AP class**: 5

- **30 million maintenance-free cycles (max.)**
- **Integrated sensing**
- **Corrosion resistance**
- **Mechanical self limitation**
- **Purged air**
- **IP64**  
- **3-Jaw Concentric Grippers / electric / Grippers**

Data, Drawings, 3-D Models, Operating Instructions  
[www.zimmer-group.com](http://www.zimmer-group.com)
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GED5006

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function of finger length.

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

TECHNICAL DATA - BASIC VERSION

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>GED5006N</td>
</tr>
<tr>
<td>Control time [s]</td>
<td>6</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>0.035</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]*</td>
<td>0.4</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>100</td>
</tr>
<tr>
<td>Voltage [V]</td>
<td>0.01</td>
</tr>
<tr>
<td>Current consumption max. [A]</td>
<td>24</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>50</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.09</td>
</tr>
</tbody>
</table>

*Depending on speed level selected

TECHNICAL DATA - MODES

Technical data - N mode

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - N mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force →</td>
<td>min. / max. [N]</td>
</tr>
<tr>
<td>Gripping force [→</td>
<td>] min. / max. [N]</td>
</tr>
<tr>
<td>Travel time →</td>
<td>min. / max. [s]</td>
</tr>
<tr>
<td>Travel time [→</td>
<td>] min. / max. [s]</td>
</tr>
</tbody>
</table>

Technical data - NC mode

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - NC mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force →</td>
<td>min. / max. [N]</td>
</tr>
<tr>
<td>Gripping force [→</td>
<td>] min. / max. [N]</td>
</tr>
<tr>
<td>Travel time →</td>
<td>min. / max. [s]</td>
</tr>
<tr>
<td>Travel time [→</td>
<td>] min. / max. [s]</td>
</tr>
</tbody>
</table>

Technical data - NO mode

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - NO mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force →</td>
<td>min. / max. [N]</td>
</tr>
<tr>
<td>Gripping force [→</td>
<td>] min. / max. [N]</td>
</tr>
<tr>
<td>Travel time →</td>
<td>min. / max. [s]</td>
</tr>
<tr>
<td>Travel time [→</td>
<td>] min. / max. [s]</td>
</tr>
</tbody>
</table>
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GED5006

INCLUDED IN DELIVERY

Centering Disc
024230
RECOMMENDED ACCESSORIES

1. Universal jaw aluminium
   UB5006AL

2. Universal jaw steel
   UB5006ST

3. Pressure piece
   ADS5006-05

4. Changeable jaw, loose-part set
   WB5006L

5. Changeable jaw, fixed part
   WB5006F

6. Plug-in Connector Angled
   Cable 10 m - Female M12
   KAW1000B8

7. Plug-in Connector Straight
   Cable 10 m - Female M12
   KAG1000B8

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.

Gripper is fastened via the pressure piece.
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GED5008

PRODUCT SPECIFICATIONS

Gripping force diagram

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

TECHNICAL DATA - BASIC VERSION

Order no.
GED5008N
Stroke per jaw [mm]
8
Control time [s]
0.035
Weight per jaw max. [kg]
0.7
Length of the gripping fingers max. [mm]*
125
Repetition accuracy +/- [mm]
0.01
Voltage [V]
24
Current consumption max. [A]
5
Operating temperature min. [°C]
5
Operating temperature max. [°C]
50
Protection to IEC 60529
IP64
Weight [kg]
1.66
* Depending on speed level selected

TECHNICAL DATA - MODES

Technical Data - N mode

Order no.
GED5008N
Gripping force → | min. / max. [N]
800 / 1450
Gripping force [+++] min. / max. [N]
800 / 1450
Travel time → | min. / max. [s]
0.18 / 0.29
Travel time [+++] min. / max. [s]
0.18 / 0.29

Technical Data - NC mode

Order no.
GED5008N
Gripping force → | min. / max. [N]
800 / 1450
Gripping force [+++] min. / max. [N]
-
Travel time → | min. / max. [s]
0.18 / 0.29
Travel time [+++] min. / max. [s]
0.15

Technical Data - NO mode

Order no.
GED5008N
Gripping force → | min. / max. [N]
800 / 1450
Gripping force [+++] min. / max. [N]
-
Travel time → | min. / max. [s]
0.15
Travel time [+++] min. / max. [s]
0.18 / 0.29
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GED5008

INCLUDED IN DELIVERY

Centering Disc
024231
RECOMMENDED ACCESSORIES

1. Universal jaw aluminium
   UB5008AL
2. Universal jaw steel
   UB5008ST
3. Pressure piece
   ADS5008-05
4. Changeable jaw, loose-part set
   WB5008L
5. Changeable jaw, fix-part
   WB5008F

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.

Gripper is fastened via the pressure piece.
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GED5010

PRODUCT SPECIFICATIONS

Gripping force diagram
Gripping force as a function finger length.

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

TECHNICAL DATA - BASIC VERSION

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>10</td>
</tr>
<tr>
<td>Control time [s]</td>
<td>0.035</td>
</tr>
<tr>
<td>Weight per jaw max. [kg]</td>
<td>1.3</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]*</td>
<td>160</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.01</td>
</tr>
<tr>
<td>Voltage [V]</td>
<td>24</td>
</tr>
<tr>
<td>Current consumption max. [A]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>50</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.33</td>
</tr>
</tbody>
</table>

*Depending on speed level selected

TECHNICAL DATA - MODES

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - N mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force →1- min. / max. [N]</td>
<td>1200 / 1900</td>
</tr>
<tr>
<td>Gripping force ↑→→1 min. / max. [N]</td>
<td>1200 / 1900</td>
</tr>
<tr>
<td>Travel time →1- min. / max. [s]</td>
<td>0.21 / 0.32</td>
</tr>
<tr>
<td>Travel time ↑→→1 min. / max. [s]</td>
<td>0.21 / 0.32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - NC mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force →1- min. / max. [N]</td>
<td>1200 / 1900</td>
</tr>
<tr>
<td>Gripping force ↑→→1 min. / max. [N]</td>
<td>-</td>
</tr>
<tr>
<td>Travel time →1- min. / max. [s]</td>
<td>0.21 / 0.32</td>
</tr>
<tr>
<td>Travel time ↑→→1 min. / max. [s]</td>
<td>0.16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data - NO mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripping force →1- min. / max. [N]</td>
<td>-</td>
</tr>
<tr>
<td>Gripping force ↑→→1 min. / max. [N]</td>
<td>1200 / 1900</td>
</tr>
<tr>
<td>Travel time →1- min. / max. [s]</td>
<td>0.16</td>
</tr>
<tr>
<td>Travel time ↑→→1 min. / max. [s]</td>
<td>0.21 / 0.32</td>
</tr>
</tbody>
</table>
3-JAW CONCENTRIC GRIPPERS
INSTALLATION SIZE GED5010

► INCLUDED IN DELIVERY

1. Centering Disc
018187
**RECOMMENDED ACCESSORIES**

1. Universal jaw aluminium
   - UB5010AL
2. Universal jaw steel
   - UB5010ST
3. Pressure piece
   - ADS5010-05
4. Changeable jaw, loose-part set
   - WB5010L
5. Changeable jaw, fix-part
   - WB5010F

**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

Gripper is fastened via the pressure piece
3-JAW CONCENTRIC GRIPPERS
SERIES GED1500

► BENEFITS IN DETAIL

1. Removable centering sleeves
   - quick and economical positioning of the gripper fingers

2. Gripper jaw
   - hardened steel
   - individual gripper finger mounting

3. Positively driven curve disc
   - synchronized the movement of the gripper jaws
   - high force transfer
   - rapid stroke and force stroke (version with 6 mm stroke per jaw)

4. Drive
   - electric drive by 24 VDC step motor

5. Guide
   - sealed round guide for harsh environmental conditions

6. Position sensing
   - measured at the end of stroke via power increase on the motor

7. Energy supply
   - standardized interface M8 round plug connection signal control line (use only cable without diode)

8. Robust, lightweight housing
   - hard coated aluminium alloy

► TECHNICAL DATA*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>2</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>2 mm - 6 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>115 N - 290 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.32 kg - 2 kg</td>
</tr>
</tbody>
</table>

*Further information is available online.
3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE
OVERVIEW OF SERIES
3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE
SERIES GD500

PRODUCT ADVANTAGES

“The flat”
- Reduced installation height due to horizontal drive
  Reduces the interference contours for your application
- Proven T slot guide
  This established and proven guiding technology stands for the highest process reliability like no other
- Failure-free continuous operation
  Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

- Our products love the challenge!
  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
  Find the best product for your specific use:
  www.zimmer-group.com
**BENEFITS IN DETAIL**

1. Robust, lightweight housing
   - hard coated aluminium alloy
2. Removable centering sleeves
   - quick and economical positioning of the gripper fingers
3. Mounting and positioning
4. Gripper jaw
   - ground, hardened steel
   - individual gripper finger mounting
5. Precise T-Slot guide
   - high forces and moments capacity
6. Cam
   - synchronized jaw movement
7. Drive
   - three double-acting pneumatic cylinders
8. Mounting block
   - mounting for inductive proximity switch

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>3</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>30 mm - 60 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>1300 N - 2480 N</td>
</tr>
<tr>
<td>Weight</td>
<td>7.4 kg - 29 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Inductive sensor
- IP 40

Series GD500 / 3-Jaw Concentric Grippers with Long Stroke / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com
3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GD530

➤ PRODUCT SPECIFICATIONS

➤ Gripping force diagram

Gripping force as a function finger length.

Colored area: increased wear and tear to be expected

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>200</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>300</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>8000</td>
</tr>
</tbody>
</table>

➤ Forces and moments

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

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>200</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>300</td>
</tr>
<tr>
<td>Mr [Nm]</td>
<td>300</td>
</tr>
</tbody>
</table>

➤ INCLUDED IN DELIVERY

Mounting bloc
KB8K

Centering Disc
DST41600

➤ RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-4X8

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Inductive proximity switch - Cable 5 in
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Quick Exhaust Valve
DEV08

Pressure Safety Valve
DSV1-8

Plug-in connector customizable Straight - Connector M8
S8-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3
Order no.  | GD530
---|---
Stroke per jaw (mm) | 30
Gripping force in closing [N] | 1300
Gripping force in opening [N] | 1300
Closing time [s] | 0.3
Opening time [s] | 0.3
Repetition accuracy +/- [mm] | 0.05
Operating pressure min. [bar] | 3
Operating pressure max. [bar] | 8
Operating temperature min. [°C] | 5
Operating temperature max. [°C] | 80
Air volume per cycle [cm³] | 170
Weight [kg] | 7.4

*All data measured at 6 bar

# Technical Data*

- **Hoseless air feed-through**
- **Gripper attachment**
- **Energy supply**
- **Fixing for gripper finger**
- **Fixing for mounting block**
- **Air connection (close)**
- **Air connection (open)**
- **Air connection, alternative (close)**
- **Air connection, alternative (open)**

Data, Drawings, 3-D Models, Operating Instructions  ➤ [www.zimmer-group.com](http://www.zimmer-group.com)
3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GD540

PRODUCT SPECIFICATIONS

Gripping force as a function of finger length.

Colored area: increased wear and tear to be expected

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

Mr [Nm] 300
Mx [Nm] 200
My [Nm] 300
Fa [N] 8000

INCLUDED IN DELIVERY

Mounting bloc
KB8K

Centering Disc
DST42000

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-4X8

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Quick Exhaust Valve
DEV08

Pressure Safety Valve
DSV1-8

Plug-in connector customisable Straight - Connector M8
S8-G-3

Plug-in connector customisable Straight - Connector M12
S12-G-3
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD540</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2480</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2480</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>440</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>19</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram](image)

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Fixing for mounting block
5. Air connection (close)
6. Air connection (open)
7. Air connection, alternative (close)
8. Air connection, alternative (open)

Hoseless air feed-through

---

Order no. GD540

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2480</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2480</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>440</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>19</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE
INSTALLATION SIZE GD560

PRODUCT SPECIFICATIONS

- **Gripping force diagram**
  - Gripping force as a function of finger length.
  - Colored area: increased wear and tear to be expected.

- **Forces and moments**
  - Displays static forces and moments that can also have an effect, besides the gripping force.
  - Mr [Nm] 300
  - Mx [Nm] 200
  - My [Nm] 300
  - Fa [N] 8000

INCLUDED IN DELIVERY

- Mounting block KB8K
- Centring Disc DST42000

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style GV1-4X8
- Plug-in connector Angled Cable 5m - Socket M8 (female) KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female) KAG500
- Inductive proximity switch - Cable 5m NJ8-E2
- Inductive proximity switch - Connector M8 NJ8-E2S
- Quick Exhaust Valve DEV08
- Pressure Safety Valve DSV1-8
- Plug-in connector customisable Straight - Connector M8 S8-G-3
- Plug-in connector customisable Straight - Connector M12 S12-G-3
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GD560</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [mm]</td>
<td>60</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>2480</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>2480</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.45</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.45</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>650</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>29</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Diagram:**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Fixing for mounting block
5. Air connection (close)
6. Air connection (open)
7. Air connection, alternative (close)
8. Air connection, alternative (open)

Hoseless air feed-through

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Data, Drawings, 3-D Models, Operating Instructions  
[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW ANGULAR GRIPPERS
OVERVIEW OF SERIES
### PNEUMATIC

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GZ1000</td>
<td>358</td>
</tr>
<tr>
<td>MGW800</td>
<td>366</td>
</tr>
<tr>
<td>GG1000</td>
<td>384</td>
</tr>
<tr>
<td>GZ</td>
<td>394</td>
</tr>
</tbody>
</table>
2-JAW ANGULAR GRIPPERS
SERIES GZ1000

PRODUCT ADVANTAGES

“The top of the line”

► Unique quality meets functionality

This is one of the best angular grippers on the market, enabling you to make your application more cost-effective and functional

► Variable attachment

Decide for yourself whether you want use screws, locknuts or a toolkit clamping system for fastening

► Sensing with process reliability

Unlike many other established products on the market, you can even differentiate between “Component present” and “Component not present”

VERSIONS

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GZ1030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saw tooth jaw without query</td>
<td>-01</td>
</tr>
<tr>
<td>Saw tooth jaw with query</td>
<td>-02</td>
</tr>
<tr>
<td>Version for attaching customer-specific gripper fingers</td>
<td>-03</td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Gripper jaw**
   - available in different versions
2. **Position sensing**
   - via inductive proximity switch
3. **Return spring**
   - to open the gripper jaws
4. **Mounting and positioning**
   - via thread / through-hole
5. **Drive**
   - single-acting pneumatic cylinder
6. **Housing**
   - hard coated surface for increased durability
7. **Mounting and positioning**
   - via fill, thread and lock nut
8. **Energy supply**

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>3</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>8&quot; - 10&quot;</td>
</tr>
<tr>
<td>Gripping moment</td>
<td>0.5 Nm - 4.4 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.03 kg - 0.125 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>1</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Spring opening O
- Inductive sensor
- IP 30
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE GZ1020

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] | 1 |
| My [Nm] | 0.6 |
| Fa [N]  | 60 |

INCLUDED IN DELIVERY

Locking nut
C092610009

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3
<table>
<thead>
<tr>
<th>Technical Data*</th>
<th>GZ1020-01</th>
<th>GZ1020-02</th>
<th>GZ1020-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>62</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Closing moment [Nm]</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [&quot;C]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [&quot;C]</td>
<td>60</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Gripper finger with integrated sensor</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.017</td>
<td>0.03</td>
<td>0.015</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE GZ1030

PRODUCT SPECIFICATIONS

Gripping force diagram

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

| Mr [N·m] | 1.5 |
| My [N·m] | 1 |
| Fa [N]     | 110 |

INCLUDED IN DELIVERY

Locking nut
C093614159

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GVM5
- Plug-in connector Straight Cable 5m - Socket M8 (female)
  KAG500
- Plug-in connector customizable Straight - Connector M8
  S8-G-3
- Plug-in connector customizable Straight - Connector M12
  S12-G-3
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GZ1030-01</th>
<th>GZ1030-02</th>
<th>GZ1030-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>130</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Closing moment [Nm]</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Gripper finger with integrated sensor</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.05</td>
<td>0.063</td>
<td>0.046</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Diagram**

- **1**: Gripper attachment
- **2**: Energy supply
- **3**: Fixing for gripper finger
- **4**: Gripping jaw with integrated sensing

---

Data, Drawings, 3-D Models, Operating Instructions  ▶  [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE GZ1040

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] 2.5
My [Nm] 2
Fa [N] 200

INCLUDED IN DELIVERY

LOCKING NUT
C093620159

RECOMMENDED ACCESSORIES

STRAIGHT FITTINGS - QUICK CONNECT STYLE
GV1-8X6

PLUG IN CONNECTOR STRAIGHT CABLE 5m - SOCKET M8 (FEMALE)
KAG500

PLUG IN CONNECTOR CUSTOMIZABLE STRAIGHT - CONNECTOR M8
S8-G-3

PLUG IN CONNECTOR CUSTOMIZABLE STRAIGHT - CONNECTOR M12
S12-G-3
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td>GZ1040-01</td>
<td>GZ1040-02</td>
</tr>
<tr>
<td>Stroke per jaw [°]</td>
<td>10</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>315</td>
</tr>
<tr>
<td>Closing moment [Nm]</td>
<td>4.4</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.04</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2</td>
</tr>
<tr>
<td>Gripper finger with integrated sensor</td>
<td>No</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.11</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Installation size GZ1040** / 2-Jaw Angular Grippers / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com
2-JAW ANGULAR GRIPPERS
SERIES MGW800

► PRODUCT ADVANTAGES

“The economical”

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

► High moment load
The optimally designed angular gear box provides the highest durability for your application

► Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

► THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGW803N</th>
</tr>
</thead>
<tbody>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
</tr>
</tbody>
</table>

www.zimmer-group.com  ▶  Data, Drawings, 3-D Models, Operating Instructions
## BENEFITS IN DETAIL

1. **Gripper jaw**  
   - Individual gripper finger mounting

2. **Robust, lightweight housing**  
   - Hard coated aluminium alloy

3. **Position sensing**  
   - Permanent magnet for direct monitoring of piston movement

4. **Integrated gripping force safety device**  
   - Spring integrated into cylinder as energy storage (from size 803 upwards)

5. **Mounting and positioning**  
   - Mounting possible from several sides for versatile positioning

6. **Energy supply**  
   - Possible from several sides

7. **Sensing slot**  
   - Mounting and positioning of magnetic field sensors

8. **Removable centering sleeves**  
   - Quick and economical positioning of the gripper fingers

---

## SERIES CHARACTERISTICS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>8</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>37.5°</td>
</tr>
<tr>
<td>Gripping moment</td>
<td>0.025 Nm - 5.2 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.01 kg - 0.45 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>2</td>
</tr>
</tbody>
</table>

- **10 million maintenance-free cycles (max.)**
- **Spring closing C**
- **Magnetic field sensor**

- **IP30**
- **IP30**
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW801

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>37</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [Nm]</td>
<td>0.2</td>
</tr>
<tr>
<td>Mr [Nm]</td>
<td>0.2</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST80100

RECOMMENDED ACCESSORIES

Angled Fittings - Barb Style Connection
WVM3

Straight Fittings - Barb Style Connection
GVM3
## Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGW801N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>5</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>7.5</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>0.01</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.01</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.14</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW802

PRODUCT SPECIFICATIONS

Gripping force diagram

- Gripping force as a function of finger length.

Forces and moments

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

| Mr [Nm] | 0.3 |
| My [Nm] | 0.3 |
| Fa [N]  | 60  |

INCLUDED IN DELIVERY

- Centering Disc
  DST80200

RECOMMENDED ACCESSORIES

- Angled Fittings - Barb Style Connection
  WVM3

- Straight Fittings - Barb Style Connection
  GVM3
### Order no.

**MGW802N**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [*]</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>9</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>10</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>0.01</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td></td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.22</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.015</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Adapter
5. Gripper
6. Air connection (close)
7. Air connection (open)
8. Air connection, alternative (close)
9. Air connection, alternative (open)

**Hoseless air feed-through**

---

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW803

PRODUCT SPECIFICATIONS

Gripping force diagram

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

<table>
<thead>
<tr>
<th>Force</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>0.4</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>0.4</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>90</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST80320

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m - Connector M8
MFS103KHC
MFS103SKHC
MFS204KHC
MFS204SKHC
WVM3

Angled Fittings - Barb
Style Connection
GVM3

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MGW803N</th>
<th>MGW803NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>33</td>
<td>49</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>0.01</td>
<td>0.1</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.64</td>
<td>1</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.025</td>
<td>0.04</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Diagram

- **Gripper attachment**
- **Energy supply**
- **Fixing for gripper finger**
- **Integrated slot for magnetic field sensor**
- **Adapter**
- **Gripper**
- **Air connection (close)**
- **Air connection (open)**
- **Air connection, alternative (close)**
- **Air connection, alternative (open)**

---

*Technical Data* for MGW803 / 2-Jaw Angular Grippers / pneumatic / Grippers

---

*Data, Drawings, 3-D Models, Operating Instructions*  
www.zimmer-group.com
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW804

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] | 0.5 |
| My [Nm] | 0.5 |
| Fa [N] | 150 |

INCLUDED IN DELIVERY

Centering Disc
DST40400

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Angled Fittings - Barb
Style Connection
WVM3

Straight Fittings - Barb
Style Connection
GVM3
# Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>MGW804N</th>
<th>MGW804NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>51</td>
<td>72</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>59</td>
<td>-</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1.4</td>
<td>2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.05</td>
<td>0.08</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Order no.**

<table>
<thead>
<tr>
<th></th>
<th>MGW804N</th>
<th>MGW804NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Diagram:**

- **1** Gripper attachment
- **2** Energy supply
- **3** Fixing for gripper finger
- **4** Integrated slot for magnetic field sensor
- **5** Adapter
- **6** Gripper
- **A** Air connection (close)
- **B** Air connection (open)
- **C** Air connection, alternative (close)
- **D** Air connection, alternative (open)

---

**Legend:**

- Hoseless air feed-through

---

**References:**

- www.zimmer-group.com

---

**Data, Drawings, 3-D Models, Operating Instructions**
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW806

PRODUCT SPECIFICATIONS

Gripping force diagram

[Graph showing gripping force as a function of finger length.]

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>0.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [Nm]</td>
<td>0.7</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>260</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc
DST40600

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  Angled Cable 5 m - Connector M8
  MFS103KHC

- Magnetic field sensor
  Straight Cable 5 m
  MFS204KHC

- Angled Fittings - Barb
  Style Connection
  WVM3

- Straight Fittings - Barb
  Style Connection
  GVM3

Data, Drawings, 3-D Models, Operating Instructions

www.zimmer-group.com
<table>
<thead>
<tr>
<th>Order no.</th>
<th>MGW806N</th>
<th>MGW806NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>91</td>
<td>118</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.1</td>
<td>0.12</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. Adapter
6. Gripper
7. Air connection (close)
8. Air connection (open)
9. Air connection, alternative (close)
10. Air connection, alternative (open)

**Installation size MGW806 / 2-Jaw Angular Grippers / pneumatic / Grippers**

Data, Drawings, 3-D Models, Operating Instructions  
[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW808

PRODUCT SPECIFICATIONS

Gripping force diagram

- Gripping force as a function of finger length.

Forces and moments

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

<table>
<thead>
<tr>
<th>Force</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [N·m]</td>
<td>1.3</td>
</tr>
<tr>
<td>My [N·m]</td>
<td>1.3</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>430</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Centering Disc

DST40600

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m - Connector M8
  - Straight Cable 5 m
  - Connector M8

MFS103KHC
MFS103SKHC
MFS204KHC
MFS204SKHC

- Angled Fittings - Barb
  - Style Connection

WVM3

- Straight Fittings - Barb
  - Style Connection

GVM3

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
**Technical Data**

<table>
<thead>
<tr>
<th></th>
<th>MGW808N</th>
<th>MGW808NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [°]</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>148</td>
<td>190</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>0.02</td>
<td>0.45</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>8.1</td>
<td>10.5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.18</td>
<td>0.19</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW810

PRODUCT SPECIFICATIONS

**Gripping force diagram**

Gripping force as a function finger length.

**Forces and moments**

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

| Mr [N·m] | 1.6 |
| My [N·m] | 1.6 |
| Fa [N]   | 500 |

INCLUDED IN DELIVERY

- Centering Disc
  - DST07540

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m - Connector M8
  - MFS103KHCMFS103SKHC
- Magnetic field sensor
  - Straight Cable 5 m - Connector M8
  - MFS204KHCMFS204SKHC
- Straight Fittings - Quick Connect Style
  - GVM5
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>MGW810N</th>
<th>MGW810NC</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>205</td>
<td>270</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>235</td>
<td>-</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>-</td>
<td>0.9</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.03</td>
<td>0.06</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>14.1</td>
<td>18.4</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.28</td>
<td>0.31</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Hoseless air feed-through**

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

---

**Installation size MGW810 / 2-Jaw Angular Grippers / pneumatic / Grippers**

Data, Drawings, 3-D Models, Operating Instructions  [www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE MGW812

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] | 2.3 |
| My [Nm] | 2.3 |
| Fa [N]  | 720 |

INCLUDED IN DELIVERY

Centering Disc
DST07540

RECOMMENDED ACCESSORIES

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>MGW812N</th>
<th>MGW812NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [°]</td>
<td>37.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>255</td>
<td>325</td>
</tr>
<tr>
<td>Gripping force in opening [N]</td>
<td>-</td>
<td>285</td>
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<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>-</td>
<td>1.1</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.03</td>
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</tr>
<tr>
<td>Opening time [s]</td>
<td>0.03</td>
<td>0.06</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>22.1</td>
<td>27.6</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.4</td>
<td>0.45</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Hoseless air feed-through

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

---

### Installation size MGW812 / 2-Jaw Angular Grippers / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com  
1  
383

---

*rimping force in closing [N] 255 325
*rimping force in opening [N] 285 -
*rimping moment secured by spring min. [Nm] -
Closing time [s] .3 .3
Opening time [s] .3 .6
Repetition accuracy +/- [mm] . .
Operating pressure min. [bar] 3 4
Operating pressure max. [bar] 8 8
Operating temperature min. [°C] 5 5
Operating temperature max. [°C] 80 80
Air volume per cycle [cm³] . .6
Weight [kg] . .
2-JAW ANGULAR GRIPPERS
SERIES GG1000

PRODUCT ADVANTAGES

“The strong”

► High gripping force
Using the high gripping force, you can safely handle even the heaviest workpieces

► High moment load
The generously scaled angular gear box provides the highest possible durability for your application

► Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GG1065</th>
<th>□</th>
<th>NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gripper jaws with mounting possibility on the side</td>
<td>F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BENEFITS IN DETAIL

1. Cam-switch and mounting block
   - for position sensing
2. Robust, lightweight housing
   - hard coated aluminium alloy
3. Sensing slot
   - groove for positioning of the magnetic field sensor
4. Permanent magnet
   - sensing of the piston setting position via magnetic field sensors
5. Positively driven lever mechanism
   - synchronized the movement of the gripper jaws
6. Integrated gripping force safety device
   - spring integrated into cylinder as energy storage
7. Drive
   - double-acting pneumatic cylinder
8. Removable centering sleeves
   - quick and economical positioning of the gripper fingers

SERIES CHARACTERISTICS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>4</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>20°</td>
</tr>
<tr>
<td>Gripping force</td>
<td>2910 N - 29110 N</td>
</tr>
<tr>
<td>Weight</td>
<td>1.4 kg - 13 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Spring closing C
- Inductive sensor
- Magnetic field sensor
- Purged air
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE GG1065

PRODUCT SPECIFICATIONS

Gripping moment diagram

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

INCLUDED IN DELIVERY

Centering Disc
BDST40800

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Mounting block
KB8-43

Alternate proximity bracket
KHA1065-8

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Fa [N] 330
My [Nm] 20
Mr [Nm] 20
**Technical Data**

<table>
<thead>
<tr>
<th></th>
<th>GG1065NC</th>
<th>GG1065FNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [°]</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Gripping moment in closing max. [Nm]</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>Gripping force in closing max. [N]</td>
<td>2910</td>
<td>2910</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>68</td>
<td>68</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.3</td>
<td>1.4</td>
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*All data measured at 6 bar

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**Order no.**

<table>
<thead>
<tr>
<th>GG1065NC</th>
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**Installation size GG1065 / 2-Jaw Angular Grippers / pneumatic / Grippers**

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE GG1085

PRODUCT SPECIFICATIONS

Gripping moment diagram
Gripping force as a function of opening angle.

<table>
<thead>
<tr>
<th>Gripping Force [Nm]</th>
<th>Moment Force [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>GG1085</td>
<td>GG1085FNC</td>
</tr>
<tr>
<td>Mr</td>
<td>40</td>
</tr>
<tr>
<td>My</td>
<td>50</td>
</tr>
<tr>
<td>Fa</td>
<td>600</td>
</tr>
</tbody>
</table>

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

INCLUDED IN DELIVERY

Centering Disc
DST41000

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GV1-8X6
- Magnetic field sensor
  Angled Cable 5 m
  MFS103KHC
- Magnetic field sensor
  Angled Cable 0.3 m - Connector M8
  MFS103SKHC
- Magnetic field sensor
  Straight Cable 5 m
  MFS204KHC
- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS204SKHC
- Mounting block
  KB8-43
- Alternate proximity bracket
  KHA1085-8
- Inductive proximity switch - Cable 5 m
  NJ8-E2
- Inductive proximity switch - Connector M8
  NJ8-E2S
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GG1085NC</th>
<th>GG1085FNC</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [*]</td>
<td>20</td>
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</tr>
<tr>
<td>Gripping moment in closing max. [Nm]</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Gripping force in closing max. [N]</td>
<td>7120</td>
<td>7120</td>
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<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.05</td>
<td>0.05</td>
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<tr>
<td>Opening time [s]</td>
<td>0.1</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
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<tr>
<td>Operating pressure min. [bar]</td>
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<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>145</td>
<td>145</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.8</td>
<td>3.2</td>
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</tbody>
</table>

*All data measured at 6 bar

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**Order no.**

<table>
<thead>
<tr>
<th></th>
<th>GG1085NC</th>
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</tr>
</thead>
</table>

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**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE GG1110

► PRODUCT SPECIFICATIONS

Gripping moment diagram

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

Fa [N] 1000
My [Nm] 65
Mr [Nm] 60

► INCLUDED IN DELIVERY

Centering Disc
DST41600

► RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-8X6

Magnetic field sensor
Angel Cable 5 m
MFS103KHC

Magnetic field sensor
Angel Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Mounting bloc
KB8-43

Alternate proximity brandket
KHA1110-8

Inductive proximity switch
-Cable 5 m
NJ8-E2

Inductive proximity switch
-Connector M8
NJ8-E2S

Plug-in connector Angel Cable 5 m - Socket M8 (female)
KAW500
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GG1110NC</th>
<th>GG1110FNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Gripping moment in closing max. [Nm]</td>
<td>370</td>
<td>370</td>
</tr>
<tr>
<td>Gripping force in closing max. [N]</td>
<td>18665</td>
<td>18665</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.16</td>
<td>0.16</td>
</tr>
<tr>
<td>Opening time [s]</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>455</td>
<td>455</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>6.3</td>
<td>6.7</td>
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</tbody>
</table>

*All data measured at 6 bar

---

**Order no.**

- **GG1110NC**
- **GG1110FNC**
2-JAW ANGULAR GRIPPERS
INSTALLATION SIZE GG1140

PRODUCT SPECIFICATIONS

Gripping force as a function of opening angle.

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

INCLUDED IN DELIVERY

CENTERING DISC DST42000

RECOMMENDED ACCESSORIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Straight Fittings - Quick Connect Style</td>
<td>GV1-4X8</td>
</tr>
<tr>
<td>Magnetic field sensor Angled Cable 5 m</td>
<td>MFS103KHC</td>
</tr>
<tr>
<td>Magnetic field sensor Straight Cable 5 m</td>
<td>MFS103SKHC</td>
</tr>
<tr>
<td>Magnetic field sensor Straight Cable 0.3 m - Connector M8</td>
<td>MFS204KHC</td>
</tr>
<tr>
<td>Magnetic field sensor Straight Cable 0.3 m - Connector M8</td>
<td>MFS204SKHC</td>
</tr>
<tr>
<td>Magnetic field sensor Straight Cable 0.3 m - Connector M8</td>
<td>MFS204SKHC</td>
</tr>
<tr>
<td>Magnetic field sensor Straight Cable 0.3 m - Connector M8</td>
<td>MFS204SKHC</td>
</tr>
<tr>
<td>Inductive proximity switch - Cable 5 m</td>
<td>NJ8-E2</td>
</tr>
<tr>
<td>Inductive proximity switch - Connector M8</td>
<td>NJ8-E2S</td>
</tr>
<tr>
<td>Inductive proximity switch - Connector M8</td>
<td>KAW500</td>
</tr>
<tr>
<td>Mounting block</td>
<td>KB8-43</td>
</tr>
<tr>
<td>Alternate proximity bracket</td>
<td>KHA1140-8</td>
</tr>
</tbody>
</table>

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GG1140NC</th>
<th>GG1140FNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [*]</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Gripping moment in closing max. [Nm]</td>
<td>725</td>
<td>725</td>
</tr>
<tr>
<td>Gripping force in closing max. [N]</td>
<td>29110</td>
<td>29110</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>143</td>
<td>143</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>760</td>
<td>760</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>12.4</td>
<td>13</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Order no.**

<table>
<thead>
<tr>
<th>GG1140NC</th>
<th>GG1140FNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>FNC</td>
</tr>
</tbody>
</table>

---

**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. Fixing clamping bracket (KHA)
7. Air purge connection option
8. Mounting possibility for stroke adjustment screws
9. Mounting possibility for cam switch
10. Adapter
11. Gripper
12. Air connection (close)
13. Air connection (open)
14. Air connection, alternative (close)
15. Air connection, alternative (open)

---

**Hoseless Air Feed-Through**
2-JAW ANGULAR GRIPPERS
SERIES GZ

BENEFITS IN DETAIL

1. Adjustable switch cam
   - direct sensing of gripper jaw movement
2. Fixing for mounting block
   - for inductive proximity switch
3. Steel (C45K) gripper jaw
   - can be machined to suit individual applications and hardened
4. Adjusting screw
   - infinitely adjustable opening stroke
   - setting of gripper jaw for exact adjustment of the workpiece
5. Drive
   - direct drive via plunger pistons
6. Robust, lightweight housing
   - hard coated aluminium alloy
7. Mounting and positioning
   - mounting possible from several sides for versatile positioning
8. Integrated gripping force safety device
   - integrated into piston chamber as energy storage (from GZ18-23D up to GZ55-65D)

TECHNICAL DATA*

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>8</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>4 mm - 5 mm</td>
</tr>
<tr>
<td>Gripping force</td>
<td>5.4 N - 135 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.036 kg - 0.38 kg</td>
</tr>
</tbody>
</table>

*Further information is available online

FOR NEW DESIGNS, USE THE SUCCESSOR SERIES, THE GZ1000

"The top of the line"

- Unique quality meets functionality
  This is one of the best angular grippers on the market, enabling you to make your application more cost-effective and functional
- Variable attachment
  Decide for yourself whether you want use screws, locknuts or a toolkit clamping system for fastening
- Sensing with process reliability
  Unlike many other established products on the market, you can even differentiate between "Component present" and "Component not present"
2-JAW RADIAL GRIPPER
THE SERIES AT A GLANCE
### PNEUMATIC

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series GK</td>
<td>398</td>
</tr>
<tr>
<td>Series GG4000</td>
<td>412</td>
</tr>
</tbody>
</table>
2-JAW RADIAL GRIPPER
SERIES GK

PRODUCT ADVANTAGES

“The compact”

Proven technology
We have more than 20 years of proven reliability, which ensures uninterrupted production for you

Best force/installation space ratio
Force transmission using the toggle lever enables high gripping force while optimally utilizing the installation space

Smooth stroke configuration
You can adjust the 180° opening angle to be unique to your application using an adjusting screw

THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

The product order numbers are arranged according to this diagram:

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GK15N</th>
<th>-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>External gripping, mechanical self-locking at 0° opening angle and spring closing</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Buffer stop**
   - absorption of kinetic energy for heavy and long gripper fingers

2. **Robust, lightweight housing**
   - hard coated aluminium alloy

3. **Stroke adjustment screw**
   - Infinitely adjustable opening stroke

4. **Guided toggle lever mechanism**
   - synchronized the movement of the gripper jaws
   - mechanically self-locking

5. **Mounting block**
   - mounting for inductive proximity switch

6. **Sensing slot**
   - mounting and positioning of magnetic field sensors

7. **Integrated gripping force safety device**
   - spring integrated into cylinder as energy storage

8. **Energy supply**
   - possible from several sides

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tr>
<td>Number of installation sizes</td>
<td>6</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>90°</td>
</tr>
<tr>
<td>Gripping force</td>
<td>100 N - 4250 N</td>
</tr>
<tr>
<td>Weight</td>
<td>0.12 kg - 4.1 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>2</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Spring closing C
- Inductive sensor
- Magnetic field sensor
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GK15

PRODUCT SPECIFICATIONS

Gripping moment diagram

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

Mr [N·m] 0.4
My [N·m] 0.4
Fa [N] 75

RECOMMENDED ACCESSORIES

Buffer stop
PB15N
Mounting block
KB3
Inductive proximity switch
- Cable 5 m
NJ3-E2
Inductive Proximity Switch
- Cable 0.3 m - Connector M8
NJ3-E2SK
Plug-in connector Angled
- Cable 5 m - Socket M8 (female)
KAW500
Plug-in connector Straight
- Cable 5 m - Socket M8 (female)
KAG500
Straight Fittings - Quick
Connect Style
GVM5
Centering Disc
ZE12H7X4
Magnetic field sensor
Angled Cable 5 m
MFS103KHC
Magnetic field sensor Angled
- Cable 0.3 m - Connector M8
MFS103SKHC
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GK15N-B</strong></td>
<td><strong>GK15NC-B</strong></td>
</tr>
<tr>
<td>Stroke per jaw [*]</td>
<td>90</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>1.2</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>70</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.06</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**NC**

1 Gripper attachment
2 Energy supply
3 Fixing for gripper finger
4 Stroke adjustment screw
5 Integrated slot for magnetic field sensor
6 Fixing for mounting block
7 Buffer stop mounting
A Air connection (close)
B Air connection (open)
C Air connection, alternative (close)
D Air connection, alternative (open)
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GK20

PRODUCT SPECIFICATIONS

Gripping moment diagram

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

| Fa [N] | 150 |
| My [Nm] | 1 |
| Mr [Nm] | 0.8 |

INCLUDED IN DELIVERY

Mounting block KB8K

RECOMMENDED ACCESSORIES

- Buffer stop PB20N
- Inductive proximity switch - Cable 5 m NJ8-E2
- Inductive proximity switch - Connector M8 NJ8-E2S
- Plug-in connector Angled Cable 5 m - Socket M8 (female) KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female) KAG500
- Straight Fittings - Quick Connect Style GVM5
- Centering Disc ZE20H7X4
- Magnetic field sensor Angled Cable 0.3 m - Connector M8 MFS103KHC
- Magnetic field sensor Straight Cable 5 m MFS204KHC
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GK20N-B</th>
<th>GK20NC-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [°]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>3</td>
<td>4.2</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>150</td>
<td>210</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.23</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram](attachment:image.png)

**Technical Data**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Stroke adjustment screw
5. Integrated slot for magnetic field sensor
6. Fixing for mounting block
7. Buffer stop mounting
8. Air connection (close)
9. Air connection (open)
10. Air connection, alternative (close)
11. Air connection, alternative (open)
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GK25

PRODUCT SPECIFICATIONS

Gripping moment diagram

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [Nm]</td>
<td>4</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>250</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES

Buffer stop
PB25N
Inductive proximity switch
NJ8-E2
Inductive proximity switch
NJ8-E2S
Plug-in connector Angled
KAW500
Plug-in connector
KAG500

Straight Fittings - Quick
GVM5
Connect Style
Centering Disc
ZE20HTX4
Magnetic field sensor
MFS103KHC
Magnetic field sensor
MFS103SKHC
Magnetic field sensor
MFS204KHC

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GK25N-B</th>
<th>GK25NC-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [°]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>10.5</td>
<td>14.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>440</td>
<td>610</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.15</td>
<td>0.25</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.15</td>
<td>0.25</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.42</td>
<td>0.58</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

### Note
- **Order no.:** GK25N-B, GK25NC-B
- **StroNe per jaw [°]:** 90, 90
- ***ripping moment in closing [Nm]:** 10.5, 14.5
- ***ripping force in closing [N]:** 440, 610
- **Closing time [s]:** 0.15, 0.25
- **Opening time [s]:** 0.15, 0.25
- **Repetition accuracy +/- [mm]:** 0.05, 0.05
- **Operating pressure min. [bar]:** 3, 5
- **Operating pressure max. [bar]:** 8, 8
- **Operating temperature min. [°C]:** 5, 5
- **Operating temperature max. [°C]:** 80, 80
- **Air volume per cycle [cm³]:** 18, 21
- **Weight [kg]:** 0.42, 0.58

*All data measured at 6 bar
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GK35

PRODUCT SPECIFICATIONS

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

<table>
<thead>
<tr>
<th>Mr [N(\text{m})]</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [N(\text{m})]</td>
<td>20</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>400</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Mounting block
KB8K

RECOMMENDED ACCESSORIES

Buffer stop
PB35N

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Straight Fittings - Quick Connect Style
GVM5

Centering Disc
ZE25H7X6

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103KHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GK35N-B</th>
<th>GK35NC-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [°]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>27.5</td>
<td>36.5</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>950</td>
<td>1250</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.25</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.25</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.9</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GK40

► PRODUCT SPECIFICATIONS

![Gripping moment diagram](image)

Gripping moment diagram

- Gripping force as a function of opening angle.

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [Nm]</td>
<td>30</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>600</td>
</tr>
</tbody>
</table>

► Forces and moments

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

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>600</th>
</tr>
</thead>
</table>

► INCLUDED IN DELIVERY

Mounting block

KB8K

► RECOMMENDED ACCESSORIES

- Buffer stop
  - PB40N
- Inductive proximity switch
  - Cable 5 m
  - NJ8-E2
- Inductive proximity switch
  - Connector M8
  - NJ8-E2S
- Plug-in connector Angled
  - Cable 5 m - Socket M8 (female)
  - KAW500
- Plug-in connector
  - Straight Cable 5 m - Socket M8 (female)
  - KAG500
- Straight Fittings - Quick
  - Connect Style
  - GVM5
- Centering Disc
  - ZE30H7X4
- Magnetic field sensor
  - Angled Cable 5 m
  - MFS103KHC
- Magnetic field sensor
  - Angled Cable 0.3 m - Connector M8
  - MFS103SKHC
- Magnetic field sensor
  - Straight Cable 5 m
  - MFS204KHC
### Technical Data*

<table>
<thead>
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<th>GK40N-B</th>
<th>GK40NC-B</th>
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<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>47</td>
<td>62</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1400</td>
<td>1820</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.25</td>
<td>0.35</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.25</td>
<td>0.35</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>78</td>
<td>90</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.7</td>
<td>2.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Installation size GK40 / 2-jaw radial gripper / pneumatic / Grippers**

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GK50

PRODUCT SPECIFICATIONS

Gripping moment diagram

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

| Mr [Nm] | 28 |
| My [Nm] | 40 |
| Fa [N]  | 800 |

INCLUDED IN DELIVERY

INDUCTIVE PROXIMITY SWITCH
- Cable 5 m
NJ8-E2

RECOMMENDED ACCESSORIES

INDUCTION PROXIMITY SWITCH
- Connector M8
NJ8-E2S

PLUG-IN CONNECTOR ANGLED CABLE 5 m - SOCKET M8 (female)
KAW500

PLUG-IN CONNECTOR STRAIGHT CABLE 5 m - SOCKET M8 (female)
KAG500

STRAIGHT FITTINGS - QUICK CONNECT STYLE
GV1-EX6

CENTERING DISC
ZE30H7X6

MAGNETIC FIELD SENSOR ANGLED CABLE 0.3 m - CONNECTOR M8
MFS103KHC

MAGNETIC FIELD SENSOR ANGLED CABLE 0.3 m - CONNECTOR M8
MFS103SKHC

MAGNETIC FIELD SENSOR STRAIGHT CABLE 0.3 m - CONNECTOR M8
MFS204KHC

MAGNETIC FIELD SENSOR STRAIGHT CABLE 0.3 m - CONNECTOR M8
MFS204SKHC

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>GK50N-B</th>
<th>GK50NC-B</th>
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<tbody>
<tr>
<td>Stroke per jaw [*]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>150</td>
<td>183</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3500</td>
<td>4250</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>160</td>
<td>200</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>3.5</td>
<td>4.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Order no.**

<table>
<thead>
<tr>
<th></th>
<th>GK50N-B</th>
<th>GK50NC-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>StroNe per jaw [°]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>150</td>
<td>183</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>160</td>
<td>200</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>3.5</td>
<td>4.1</td>
</tr>
</tbody>
</table>

---

**Technical Data**

- **NC**
  - Gripper attachment
  - Energy supply
  - Fixing for gripper finger
  - Fixing for mounting bloc
  - Air connection (close)
  - Air connection (open)
  - Air connection, alternative (close)
  - Air connection, alternative (open)

---

*www.zimmer-group.com*
2-JAW RADIAL GRIPPER
SERIES GG4000

> PRODUCT ADVANTAGES

“The sealed”
- Suitable for use under extreme conditions
  The sealed rotation axis guarantees process reliability even under the harshest conditions
- Smooth stroke configuration
  You can adjust the 180° opening angle to be unique to your application using an adjusting screw
- Failure-free continuous operation
  Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

> THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY
- The product order numbers are arranged according to this diagram:

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GG4032</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw 90°</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Stroke per jaw 20°</td>
<td></td>
<td>S</td>
</tr>
</tbody>
</table>

www.zimmer-group.com   Data, Drawings, 3-D Models, Operating Instructions
**BENEFITS IN DETAIL**

1. **Stroke adjustment screw**
   - Infinitely adjustable opening stroke
2. **Removable centering sleeves**
   - Individual gripper finger mounting
3. **Robust, lightweight housing**
   - Hard coated aluminium alloy
4. **Sensing slot**
   - Mounting and positioning of magnetic field sensors
5. **Mounting and positioning**
   - Mounting possible from several sides for versatile positioning
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. **Mounting block**
   - Mounting for inductive proximity switch
9. **Sealed rotation point**
   - For use under extreme conditions

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>6</td>
</tr>
<tr>
<td>Stroke per jaw</td>
<td>90°</td>
</tr>
<tr>
<td>Gripping moment</td>
<td>7 Nm - 156 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.25 kg - 4.5 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- 10 million maintenance-free cycles (max.)
- Inductive sensor
- IP 64
- Spring closing C
- High-strength S
- Magnetic field sensor
- Purged air
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GG4032

► PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Gripping force as a function finger length.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[N]</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>[mm]</td>
</tr>
<tr>
<td>0</td>
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<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>Fa</td>
</tr>
<tr>
<td>180</td>
</tr>
<tr>
<td>My</td>
</tr>
</tbody>
</table>

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

► INCLUDED IN DELIVERY

Centering Disc
Centering Disc
DST40600
Stroke adjustment screw
HES0014

► RECOMMENDED ACCESSORIES

Mounting block
KB4-06
Straight Fittings - Quick Connect Style
GVM5
Pressure Safety Valve
DSV1-8
Magnetic field sensor
MFS103SKHC
Magnetic field sensor
MFS204SKHC
2-Position Sensor Cable 0.3 m - Connector MB
MFS2SKHC
Inductive proximity switch - Cable 5 m
NJ4-E2
Plug-in connector Angled Cable 5 m - Socket MB (female)
KA500
Plug-in connector Straight Cable 5 m - Socket MB (female)
KAG500
Plug-in connector customizable Straight - Connector MB
S8-G-3

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>GG4032NC</th>
<th>GG4032SC</th>
</tr>
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<tbody>
<tr>
<td><strong>Stroke per jaw [&quot;]</strong></td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td><strong>Gripping moment in closing at 0° [Nm]</strong></td>
<td>6.5</td>
<td>7</td>
</tr>
<tr>
<td><strong>Gripping force in closing [N]</strong></td>
<td>430</td>
<td>460</td>
</tr>
<tr>
<td><strong>Gripping moment secured by spring min. [Nm]</strong></td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Length of the gripper fingers max. [mm]</strong></td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td><strong>Weight per jaw max. [g]</strong></td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td><strong>Closing time [s]</strong></td>
<td>0.055</td>
<td>0.02</td>
</tr>
<tr>
<td><strong>Opening time [s]</strong></td>
<td>0.08</td>
<td>0.03</td>
</tr>
<tr>
<td><strong>Repetition accuracy +/- [mm]</strong></td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Operating pressure min. [bar]</strong></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Operating pressure max. [bar]</strong></td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Operating temperature min. [°C]</strong></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Operating temperature max. [°C]</strong></td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td><strong>Air volume per cycle [cm³]</strong></td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td><strong>Weight [kg]</strong></td>
<td>0.25</td>
<td>0.25</td>
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*All data measured at 6 bar

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### Technical Data

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<tr>
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<th>GG4032NC</th>
<th>GG4032SC</th>
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<tbody>
<tr>
<td><strong>Hoseless air feed-through</strong></td>
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<td>1</td>
</tr>
</tbody>
</table>

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### Hoseless air feed-through

- **Gripper attachment**
- **Energy supply**
- **Fixing for gripper finger**
- **Integrated slot for magnetic field sensor**
- **Fixing for mounting block**
- **Air purge connection option**
- **Mounting possibility for cam switch**
- **Adapter**
- **Gripper**
  - A: Air connection (close)
  - B: Air connection (open)
  - C: Air connection, alternative (close)
  - D: Air connection, alternative (open)

---

**www.zimmer-group.com**
2-JAW RADIAL GRIPPER  
INSTALLATION SIZE GG4040

PRODUCT SPECIFICATIONS

Gripping force diagram

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

INCLUDED IN DELIVERY

Centering Disc  
BDST40800

Stroke adjustment screw  
HES0015

RECOMMENDED ACCESSORIES

Mounting block  
KB8-48

Straight Fittings - Quick Connect Style  
GVM5

Pressure Safety Valve  
DSV1-8

Magnetic field sensor  
Magnetic field sensor
Angled Cable 0.3 m - Connector M8  
MFS103SKHC
Straight Cable 0.3 m - Connector M8  
MFS204SKHC

2-Position-Sensor Cable  
MFSP2SKHC

Inductive proximity switch  
NJ8-E2S

Plug-in connector Angled Cable 5 m - Socket M8 (female)  
KAWS500

Plug-in connector Straight Cable 5 m - Socket M8 (female)  
KAG500

Plug-in connector customiz-able Straight - Connector M8  
S8-G-3
### Technical Data*

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<tr>
<td>Stroke per jaw [&quot;]</td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td>Gripping moment in closing at 0° [Nm]</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>700</td>
<td>800</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>6</td>
<td>8.5</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>85</td>
<td>85</td>
</tr>
<tr>
<td>Weight per jaw max. [g]</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.060</td>
<td>0.02</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.11</td>
<td>0.06</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.5</td>
<td>0.5</td>
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</table>

*All data measured at 6 bar

---

NC

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. Mounting possibility for cam switch
8. Adapter
9. Gripper
10. Air connection (close)
11. Air connection (open)
12. Air connection, alternative (close)
13. Air connection, alternative (open)

SC

Data, Drawings, 3-D Models, Operating Instructions ◄ www.zimmer-group.com ◀
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GG4049

PRODUCT SPECIFICATIONS

Gripping force diagram

Forces and moments

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>22</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [Nm]</td>
<td>22</td>
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<tr>
<td>Fa [N]</td>
<td>475</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Gripping force as a function finger length.

measured from top edge of gripper jaw

RECOMMENDED ACCESSORIES

Mr [Nm]
My [Nm]
Fa [N]
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GG4049NC</th>
<th>GG4049SC</th>
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<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td>Gripping moment in closing at 0° [Nm]</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1000</td>
<td>1150</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>4.2</td>
<td>7.2</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Weight per jaw max. [g]</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.11</td>
<td>0.05</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.17</td>
<td>0.09</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>44</td>
<td>33</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.85</td>
<td>0.85</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GG4058

PRODUCT SPECIFICATIONS

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

Forces and moments

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>720</td>
</tr>
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</table>

INCLUDED IN DELIVERY

Centering Disc
DST11500
Stroke adjustment screw
HES0017

RECOMMENDED ACCESSORIES

Mounting block
KB8-49
Straight Fittings - Quick Connect Style
GVM5
Pressure Safety Valve
DSV1-8
Magnetic field sensor
Angled Cable 0.3 m - Connector MB
MFS103SHKC
Magnetic field sensor
Straight Cable 0.3 m - Connector MB
MFS204SHKC

2-Position-Sensor Cable
0.3 m - Connector MB
MFSP2SKHC
Inductive proximity switch
- Connector MB
NJ8-E2S
Plug-in connector Angled Cable 5m - Socket MB (female)
KA500
Plug-in connector Straight Cable 5m - Socket MB (female)
KG500
Plug-in connector customizable Straight - Connector MB
S8-G-3
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GG4058NC</th>
<th>GG4058SC</th>
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<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td>Gripping moment in closing at 0° [Nm]</td>
<td>46</td>
<td>53.5</td>
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<tr>
<td>Gripping force in closing [N]</td>
<td>1650</td>
<td>1900</td>
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<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>5.7</td>
<td>14.5</td>
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<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Weight per jaw max. [g]</td>
<td>360</td>
<td>360</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.16</td>
<td>0.14</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.28</td>
<td>0.17</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>86</td>
<td>65</td>
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<tr>
<td>Weight [kg]</td>
<td>1.4</td>
<td>1.4</td>
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</table>

*All data measured at 6 bar

**Notes:**
- NC: Hoseless air feed-through
- SC: 2-Jaw radial gripper / pneumatic / Grippers
- Adapter
- Air purge connection option
- Gripper attachment
- Energy supply
- Fixing for gripper finger
- Integrated slot for magnetic field sensor
- Fixing for mounting block
- Air connection (close)
- Air connection (open)
- Air connection, alternative (close)
- Air connection, alternative (open)
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GG4072

PRODUCT SPECIFICATIONS

Gripping force diagram

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

| Mr [Nmm] | 41 |
| My [Nmm] | 41 |
| Fa [N]   | 1100 |

INCLUDED IN DELIVERY

Centering Disc
DST42000

Stroke adjustment screw
HES0018

RECOMMENDED ACCESSORIES

Mounting block
KB8-49

Straight Fittings - Quick Connect Style
GV1-8X6

Pressure Safety Valve
DSV1-8

Magnetic field sensor
Angled Cable 0.3 m - Connector MB
MFS103SKHC

Magnetic field sensor
Straight Cable 0.3 m - Connector MB
MFS204SKHC

2-Position-Sensor Cable 0.3 m - Connector MB
MFS2SKHC

Inductive proximity switch
NJ8-E25

Plug-in connector Angled Cable 5m - Socket MB (female)
KA0500

Plug-in connector Straight Cable 5m - Socket MB (female)
KA0500

Plug-in connector customizable Straight - Connector MB
S8-G-3
### Technical Data*

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<th>Parameter</th>
<th>GG4072NC</th>
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<tbody>
<tr>
<td>Stroke per jaw [*]</td>
<td>90</td>
<td>20</td>
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<tr>
<td>Gripping moment in closing at 0° [Nm]</td>
<td>69</td>
<td>94</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>1950</td>
<td>2700</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>145</td>
<td>145</td>
</tr>
<tr>
<td>Weight per jaw max. [g]</td>
<td>650</td>
<td>650</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.21</td>
<td>0.06</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.34</td>
<td>0.175</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>130</td>
<td>100</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.45</td>
<td>2.45</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Order no.**

### Hoseless Air Feed-Through

- **NC**
  - 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. Mounting possibility for cam switch
  - 8. Adapter
  - 9. Gripper

### SC

- **A** Air connection (close)
- **B** Air connection (open)
- **C** Air connection, alternative (close)
- **D** Air connection, alternative (open)
2-JAW RADIAL GRIPPER
INSTALLATION SIZE GG4084

PRODUCT SPECIFICATIONS

Gripping force diagram

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

| Mr [Nmm] | 60 |
| My [Nmm] | 60 |
| Fa [N]   | 1800 |

INCLUDED IN DELIVERY

Centering Disc
DST43000

Stroke adjustment screw
HES5019

RECOMMENDED ACCESSORIES

Mounting block
KB8-49

Straight Fittings - Quick Connect Style
GV1-8X6

Pressure Safety Valve
DSV1-8

Magnetic field sensor
MFS103KHC

Magnetic field sensor
MFS204SKHC

2-Position-Sensor Cable 0.3 m - Connector MB
MFSP2SKHC

Inductive proximity switch
NJ8-E2S

Plug-in connector Angled Cable 5 m - Socket MB (female)
KA500

Plug-in connector Straight Cable 5 m - Socket MB (female)
KAG500

Plug-in connector customisable Straight - Connector MB
S8-G-3
<table>
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<tr>
<th></th>
<th>GG4084NC</th>
<th>GG4084SC</th>
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<tbody>
<tr>
<td>Stroke per jaw [*]</td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td>Gripping moment in closing at 0° [Nm]</td>
<td>135</td>
<td>156</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>3500</td>
<td>4000</td>
</tr>
<tr>
<td>Gripping moment secured by spring min. [Nm]</td>
<td>80</td>
<td>115</td>
</tr>
<tr>
<td>Length of the gripper fingers max. [mm]</td>
<td>175</td>
<td>175</td>
</tr>
<tr>
<td>Weight per jaw max. [g]</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.27</td>
<td>0.11</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.48</td>
<td>0.250</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>220</td>
<td>170</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.5</td>
<td>4.5</td>
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*All data measured at 6 bar
GRIPPERS FOR SPECIFIC TASKS
OVERVIEW OF SERIES
<table>
<thead>
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<th>PNEUMATIC</th>
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<tr>
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<td>Series LG1000</td>
<td>436</td>
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<tr>
<td>Series LGG</td>
<td>446</td>
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<td>Series RG</td>
<td>452</td>
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<td>Series ST</td>
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<td>Series SCH</td>
<td>464</td>
</tr>
<tr>
<td>Series GS</td>
<td>470</td>
</tr>
<tr>
<td>Series GSI</td>
<td>478</td>
</tr>
<tr>
<td>Series HM1000</td>
<td>482</td>
</tr>
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INTERNAL GRIPPER
SERIES LGS

► PRODUCT ADVANTAGES

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

► Individually machinable clamping jaws
You have never adjusted a gripper to your application this quickly and easily

► Direct drive
The control system with only one pneumatic line reduces installation effort and interference contours

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Find the best product for your specific use:
www.zimmer-group.com

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LG4-20</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>extended collet chuck</td>
<td>V</td>
<td></td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Energy supply**
   - axial and radial possible

2. **Protective membrane**
   - between collet chuck and function membrane

3. **Direct drive with membrane**
   - only one pneumatic line required

4. **Stroke limit**
   - prevents damage by overstretching with empty strokes

5. **Collet chuck**
   - for individual machining

6. **Steel protective cover**
   - protects the membrane against puncturing

7. **O-ring for backstroke**
   - gripper close movement after venting

**FURTHER INFORMATION IS AVAILABLE ONLINE**

- **Technical Information**
  All information just a click away at: [www.zimmer-group.com](http://www.zimmer-group.com)
  Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
  Quick, clear and always up-to-date.
INTERNAL GRIPPER
INSTALLATION SIZE LG4-20

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES

www.zimmer-group.com

Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG4-20</td>
<td></td>
</tr>
<tr>
<td>Total stroke in Ø [mm]</td>
<td>1</td>
</tr>
<tr>
<td>Grip diameter min. [mm]</td>
<td>4</td>
</tr>
<tr>
<td>Gripping moment in opening [Nm]</td>
<td>0.5</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.075</td>
</tr>
<tr>
<td>Machining length of the collet max. [mm]</td>
<td>9</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
INTERNAL GRIPPER
INSTALLATION SIZE LG20-30

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

- Collet Chuck
  - DST20300
- Collet Chuck
  - DST20301

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  - GVM5
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>LG20-30</th>
<th>LG20-30V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total stroke in Ø [mm]</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Grip diameter min. [mm]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Gripping moment in opening [Nm]</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.16</td>
<td>0.29</td>
</tr>
<tr>
<td>Machining length of the collet max. [mm]</td>
<td>10</td>
<td>35</td>
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</tbody>
</table>

*All data measured at 6 bar
INTERNAL GRIPPER
INSTALLATION SIZE LG30-50

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY
Collet Chuck
DST30500

RECOMMENDED ACCESSORIES
Straight Fittings - Quick Connect Style
GVM5
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LG30-50</th>
</tr>
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<tbody>
<tr>
<td>Total stroke in Ø [mm]</td>
<td>1</td>
</tr>
<tr>
<td>Grip diameter min. [mm]</td>
<td>6</td>
</tr>
<tr>
<td>Gripping moment in opening [Nm]</td>
<td>3</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.46</td>
</tr>
<tr>
<td>Machining length of the collet max. [mm]</td>
<td>11</td>
</tr>
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</table>

*All data measured at 6 bar*

---

**LG30-50**

1. Gripper attachment
2. Energy supply
3. Machining possibility
4. Air connection (open)
5. Air connection, alternative (open)

---

![Diagram of LG30-50](image-url)
INTERNAL GRIPPER
SERIES LG1000

◄ PRODUCT ADVANTAGES

► Individually adjustable
The design of the gripper enables you to grip not only cylindrical gripping surfaces, but also conical and square ones with process reliability

► Integrated air or vacuum feedthrough
Use this option for applications such as leak tests, purging or vacuuming your part

► Surface protection provided by silicone membrane
In addition to covering a vast range of gripper hole diameters, the membrane provides ideal protection from damage

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Find the best product for your specific use:
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HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LG1008</th>
<th>SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axial energy supply</td>
<td>-01</td>
<td></td>
</tr>
<tr>
<td>Radial energy supply, through-hole</td>
<td>-02</td>
<td></td>
</tr>
<tr>
<td>Silicone rubber membrane</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Energy supply**
   - Axial (version-01) or radial (version-02)
2. **Mounting and positioning**
   - via fit, thread and lock nut
3. **Robust, lightweight housing**
   - hard coated aluminium alloy
4. **Direct gripping with rubber membrane**
   - High holding force due to high friction value
   - reset when venting
5. **Through-hole**
   - Compressed air or vacuum connection for cooling the workpieces or testing them for leaks (version-02)

**SLIP FORCE DIAGRAM**

Values measured at 6 bar and Ra = 0.8
INTERNAL GRIPPER
INSTALLATION SIZE LG1008

PRODUCT SPECIFICATIONS

Slip force diagram

Values measured at 6 bar and Ra = 0.8

RECOMMENDED ACCESSORIES

Straight Fittings - Barb Style Connection
GVM3
Straight Fittings - Quick Connect Style
GVM5
Angled Fittings - Barb Style Connection
WVM3
Angled Fittings - Quick Connect Style
WVM5
Centering cone
DAL02350

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>LG1008-01SI</th>
<th>LG1008-02SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Retract time / Extend time [s]</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Grip diameter max. [mm]</td>
<td>10.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Grip diameter min. [mm]</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Total stroke in Ø [mm]</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Max. slip force [N]</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.032</td>
<td>0.028</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

1. Gripper attachment
2. Energy supply
3. Centering cone (for order no., see accessory recommendation)
4. Through-hole

---

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
INTERNAL GRIPPER
INSTALLATION SIZE LG1010

PRODUCT SPECIFICATIONS

Slip force diagram

Values measured at 6 bar and Ra = 0.8

RECOMMENDED ACCESSORIES

<table>
<thead>
<tr>
<th>Straight Fittings - Barb Style Connection</th>
<th>Straight Fittings - Quick Connect Style</th>
<th>Angled Fittings - Barb Style Connection</th>
<th>Angled Fittings - Quick Connect Style</th>
<th>Centering cone</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVM3</td>
<td>GVM5</td>
<td>WVM3</td>
<td>WVM5</td>
<td>DAL02360</td>
</tr>
</tbody>
</table>

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
**Technical Data***

<table>
<thead>
<tr>
<th></th>
<th>LG1010-01SI</th>
<th>LG1010-02SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Retract time / Extend time [s]</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Grip diameter max. [mm]</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Grip diameter min. [mm]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Max. slip force [N]</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.033</td>
<td>0.029</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Order no.**

<table>
<thead>
<tr>
<th></th>
<th>LG1010-01SI</th>
<th>LG1010-02SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through-hole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centering cone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gripper attachment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy supply</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

*Data, Drawings, 3-D Models, Operating Instructions ◄ [www.zimmer-group.com](http://www.zimmer-group.com)*
INTERNAL GRIPPER
INSTALLATION SIZE LG1012

PRODUCT SPECIFICATIONS

Slip force diagram

| Values measured at 6 bar and Ra = 0.8 |

Diameter [mm] | Slip force [N] |
--- | --- |
0 | 0 |
10 | 10 |
15 | 20 |
20 | 30 |
25 | 40 |
30 | 50 |
35 | 60 |
40 | 70 |
45 | 80 |
50 | 90 |
55 | 100 |
60 | 110 |
65 | 120 |
70 | 130 |
75 | 140 |
80 | 150 |
85 | 160 |
90 | 170 |
95 | 180 |
100 | 190 |
105 | 200 |
110 | 210 |
115 | 220 |
120 | 230 |
125 | 240 |
130 | 250 |
135 | 260 |
140 | 270 |
145 | 280 |
150 | 290 |
155 | 300 |
160 | 310 |
165 | 320 |
170 | 330 |
175 | 340 |
180 | 350 |
185 | 360 |
190 | 370 |
195 | 380 |
200 | 390 |

RECOMMENDED ACCESSORIES

- Straight Fittings - Barb Style Connection: GVM3
- Straight Fittings - Quick Connect Style: GVM5
- Angled Fittings - Barb Style Connection: WVM3
- Angled Fittings - Quick Connect Style: WVM5
- Centering cone: DAL02370
### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>LG1012-01SI</th>
<th>LG1012-02SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Retract time / Extend time [s]</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Grip diameter max. [mm]</td>
<td>15.5</td>
<td>15.5</td>
</tr>
<tr>
<td>Grip diameter min. [mm]</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Total stroke in ( \varnothing ) [mm]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Max. slip force [N]</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.036</td>
<td>0.034</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

*ripper attachment
1. Gripper attachment
2. Energy supply
3. Centering cone (for order no., see accessory recommendation)
4. Through-hole

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443
INTERNAL GRIPPER
INSTALLATION SIZE LG1015

PRODUCT SPECIFICATIONS

Slip force diagram

Values measured at 6 bar and Ra = 0.8

RECOMMENDED ACCESSORIES

Straight Fittings - Barb Style Connection
GVM3

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Barb Style Connection
WVM3

Angled Fittings - Quick Connect Style
WVM5

Centering cone
DAL02380
**Technical Data**

<table>
<thead>
<tr>
<th></th>
<th>LG1015-01SI</th>
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</thead>
<tbody>
<tr>
<td>Operating temperature [°C]</td>
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<td>5 ... 80</td>
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<tr>
<td>Retract time / Extend time [s]</td>
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<td>0.2</td>
</tr>
<tr>
<td>Grip diameter max. [mm]</td>
<td>18.5</td>
<td>18.5</td>
</tr>
<tr>
<td>Grip diameter min. [mm]</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Total stroke in Ø [mm]</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Max. slip force [N]</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.041</td>
<td>0.037</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

**Order no.**

- LG1015-01SI
- LG1015-02SI

---

**Installation size LG1015 / Internal gripper / pneumatic / Grppers**

1. Gripper attachment
2. Energy supply
3. Centering cone (for order no., see accessory recommendation)
4. Through-hole

---

**Data, Drawings, 3-D Models, Operating Instructions**

- [www.zimmer-group.com](http://www.zimmer-group.com)
INTERNAL GRIPPER
SERIES LGG

► PRODUCT ADVANTAGES

► Surface protection with rubber knobs
Continuously protect the surface of your workpieces and minimise rejections in the process

► Secure hold
The coefficient of friction ensures your workpiece stays held reliably, even under high dynamics

► Direct drive
The control system with only one pneumatic line reduces installation effort and interference contours

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Energy supply**
   - radial
   - axial and radial from LG35-39

2. **Fixing**
   - by fit, thread and locknut

3. **Robust, lightweight housing**
   - hard coated aluminium alloy
   - no overstretching of the rubber membrane at empty stroke

4. **Direct gripping with rubber knops**
   - high retention force due to good friction value, approx. 0.5 with rubber

5. **Gripping with single-acting rubber membranes**
   - low actuate effort
   - reset when venting
   - adjustable force with operating pressure (2 - 6 bar)

6. **Inner core**
   - saves air volume and cycle time (from LG35-39)

---

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**
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Quick, clear and always up-to-date.
# INTERNAL GRIPPER
## SERIES LGG

### PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LG15-18</td>
<td>2.5</td>
<td>15</td>
<td>17.5</td>
<td>100</td>
<td>0.2</td>
<td>0.05</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>80</td>
<td>M14X1.5</td>
<td>18</td>
<td>5</td>
<td>10.5</td>
<td>7</td>
<td>14.5</td>
<td>42</td>
<td>14h7</td>
<td>0.031</td>
</tr>
<tr>
<td>LG18-22</td>
<td>4</td>
<td>17.5</td>
<td>21.5</td>
<td>100</td>
<td>0.2</td>
<td>0.05</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>80</td>
<td>M14X1.5</td>
<td>18</td>
<td>5</td>
<td>10.5</td>
<td>7</td>
<td>17</td>
<td>42</td>
<td>14h7</td>
<td>0.035</td>
</tr>
<tr>
<td>LG22-26</td>
<td>4</td>
<td>21.5</td>
<td>25.5</td>
<td>150</td>
<td>0.2</td>
<td>0.05</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>80</td>
<td>M14X1.5</td>
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</tbody>
</table>

*All data measured at 6 bar

### RECOMMENDED ACCESSORIES

- **Straight Fittings - Quick Connect Style**: GV1-8X6
- **Quick Exhaust Valve**: DEV06

**Technical Data**

- **Gripper attachment**
- **Energy supply**

---

[www.zimmer-group.com](http://www.zimmer-group.com) ➤ Data, Drawings, 3-D Models, Operating Instructions
PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LG35-39</th>
<th>LG40-45</th>
<th>LG46-51</th>
<th>LG51-56</th>
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</tbody>
</table>

All data measured at 6 bar

*ripper attachment
Energy supply

www.zimmer-group.com
INTERNAL GRIPPER
SERIES LGG

PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LG100-110</th>
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<th>LG120-135</th>
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<td>E Ø [mm]</td>
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<td>F [mm]</td>
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<td>G [mm]</td>
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<td>L [mm]</td>
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<td>Weight [kg]</td>
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</table>

* All data measured at 6 bar

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-8X0

Quick Exhaust Valve
DEV06

Technical Data

1. Gripper attachment
2. Energy supply
THE KNOW-HOW FACTORY
Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com

PRODUCT ADVANTAGES

- Surface protection with rubber knobs
  Continuously protect the surface of your workpieces and minimise rejections in the process

- Secure hold
  The coefficient of friction ensures your workpiece stays held reliably, even under high dynamics

- Direct drive
  The control system with only one pneumatic line reduces installation effort and interference contours

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**BENEFITS IN DETAIL**

1. Mounting and positioning
2. Drive
   - direct via rubber membrane
3. Energy supply
   - possible from several sides
4. Robust, lightweight housing
   - hard coated aluminium alloy

**FURTHER INFORMATION IS AVAILABLE ONLINE**

- Technical Information
  All information just a click away at: www.zimmer-group.com
  Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
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Data, Drawings, 3-D Models, Operating Instructions  
www.zimmer-group.com
EXTERNAL GRIPPER
INSTALLATION SIZE RG0-30

► PRODUCT SPECIFICATIONS

► RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Quick Exhaust Valve
DEV04
<table>
<thead>
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<th>Order no.</th>
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<tbody>
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<td>RG0-30</td>
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<td>Grip diameter max. [mm]</td>
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<tr>
<td>Gripping force in closing [N]</td>
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<td>Closing time [s]</td>
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<td>Opening time [s]</td>
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<td>Operating pressure min. [bar]</td>
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</tr>
<tr>
<td>Operating pressure max. [bar]</td>
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</tr>
<tr>
<td>Operating temperature min. [°C]</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<td>Air volume per cycle [cm³]</td>
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<tr>
<td>Weight [kg]</td>
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</table>

*All data measured at 3 bar

1 Gripper attachment
2 Energy supply
3 Adapter
4 Gripper
A Air connection (close)
A Air connection, alternative (close)

Hoseless air feed-through
EXTERNAL GRIPPER
INSTALLATION SIZE RG10-60

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Quick Exhaust Valve
DEV04
Order no. | Technical Data*
--- | ---
RG10-60 | 
Grip diameter min. [mm] | 10
Grip diameter max. [mm] | 58
Gripping force in closing [N] | 1000
Closing time [s] | 0.1
Opening time [s] | 0.1
Operating pressure min. [bar] | 1
Operating pressure max. [bar] | 3
Operating temperature min. [°C] | 5
Operating temperature max. [°C] | 80
Air volume per cycle [cm³] | 33
Weight [kg] | 0.85

*All data measured at 3 bar

---

1 Gripper attachment
2 Energy supply
3 Adapter
4 Gripper
A Air connection (close)
A Air connection, alternative (close)
NEEDLE GRIPPER
SERIES ST

PRODUCT ADVANTAGES

- Smooth stroke configuration
  Customise the stroke for your application with infinitely variable adjustment using an adjusting dial

- Workpiece drain function
  This function guarantees the quick and reliable deposit of the workpiece and prevents disruptions to the process sequence

- Query about magnetic field sensor technology
  Detecting the end position allows you to have shorter cycle times and an integrated control system

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**BENEFITS IN DETAIL**

1. **Extending needles** - gripping by penetration
2. **Force transfer** - via hardened steel taper pin
3. **Needle wiper** - helps wiping the workpiece
4. **Stroke adjustment** - adjustment of the needle stroke
5. **Integrated spring** - for return
6. **Blow off air connection** - to reject the workpiece with air
7. **Energy supply** - possible from several sides (size ST40)
8. **Drive** - single-acting pneumatic cylinder with spring return
9. **Sensing slot** - mounting and positioning of magnetic field sensors

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**
All information just a click away at: www.zimmer-group.com
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
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NEEDLE GRIPPER
INSTALLATION SIZE ST36

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Magnetic field sensor Angle Cable 5 m
MFS103KHC

Magnetic field sensor Angle Cable 0.3 m - Connector M8
MFS1035KHC

Plug-in connector customizable Straight - Connector M8
S6-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3
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<td>Needle diameter [mm]</td>
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<td>Repetition accuracy +/- [mm]</td>
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<td>Operating pressure min. [bar]</td>
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<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
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<td>Operating temperature min. [°C]</td>
<td>5</td>
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<td>Operating temperature max. [°C]</td>
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<td>Weight [kg]</td>
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*All data measured at 6 bar

1 Gripper attachment
2 Energy supply
3 Integrated slot for magnetic field sensor
4 Blowing air
5 Adjustment ring
6 Air connection (open)
7 Air connection, alternative (open)
NEEDLE GRIPPER
INSTALLATION SIZE ST40

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Plug-in connector customizable Straight - Connector M8
S6-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3
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<td>ST40-B</td>
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</table>

- **Needle stroke adjustable min. [mm]**: 0
- **Needle stroke adjustable max. [mm]**: 2
- **Number of needles [Pie]**: 40
- **Needle diameter [mm]**: 0.7
- **Retract time / Extend time [s]**: 0.03
- **Repetition accuracy +/- [mm]**: 0.05
- **Operating pressure min. [bar]**: 4
- **Operating pressure max. [bar]**: 8
- **Operating temperature min. [°C]**: 5
- **Operating temperature max. [°C]**: 80
- **Air volume per cycle [cm³]**: 3
- **Weight [kg]**: 0.49

*All data measured at 6 bar

---

1. **Gripper attachment**
2. **Energy supply**
3. **Blowing air**
4. **Adjustment ring**
5. **Air connection (open)**
6. **Air connection, alternative (open)**

---

Data, Drawings, 3-D Models, Operating Instructions  
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NEEDLE GRIPPER
SERIES SCH

PRODUCT ADVANTAGES

► Smooth stroke configuration
Adjust the needle stroke individually and smoothly via the direct needle setting

► Flat structure
Due to its compact design, you save precious space in your machine

► Query about magnetic field sensor technology
Detecting the end position allows you to have faster cycle times and an integrated control system

THE BEST PRODUCT FOR YOUR APPLICATION

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**BENEFITS IN DETAIL**

1. **Extending needles**
   - gripping by penetration
2. **Robust, lightweight housing**
   - hard coated aluminium alloy
3. **Stroke adjustment**
   - by shifting in an elongated hole
4. **Drive**
   - two double-acting pneumatic cylinders
5. **Energy supply**
6. **Mounting and positioning**
7. **Sensing slot**
   - mounting and positioning of magnetic field sensors

**FURTHER INFORMATION IS AVAILABLE ONLINE**

- **Technical Information**
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NEEDLE GRIPPER
INSTALLATION SIZE SCH20

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY
- Spare needle
- Pneumatic face hose

RECOMMENDED ACCESSORIES
- Magnetic field sensor Straight Cable 5 m
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
- Plug-in connector customizable Straight - Connector M12
Order no.

| SCH20-B |
|---|---|
| Needle stroke adjustable min. [mm] | 0 |
| Needle stroke adjustable max. [mm] | 6 |
| Number of needles [P]e | 4 |
| Needle diameter [mm] | 1.2 |
| Retract time / Extend time [s] | 0.02 |
| Repetition accuracy +/- [mm] | 0.05 |
| Operating pressure min. [bar] | 4 |
| Operating pressure max. [bar] | 8 |
| Operating temperature min. [°C] | 5 |
| Operating temperature max. [°C] | 80 |
| Air volume per cycle [cm³] | 5 |
| Weight [kg] | 0.35 |

*All data measured at 6 bar
NEEDLE GRIPPER
INSTALLATION SIZE SCH23

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES
### Technical Data

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<tr>
<td>Number of needles [Pice]</td>
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<td>Needle diameter [mm]</td>
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<tr>
<td>Operating pressure min. [bar]</td>
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<tr>
<td>Operating pressure max. [bar]</td>
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</tr>
<tr>
<td>Operating temperature min. [°C]</td>
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</tr>
<tr>
<td>Operating temperature max. [°C]</td>
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<tr>
<td>Weight [kg]</td>
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*All data measured at 6 bar*
O-RING ASSEMBLY GRIPPER, OUTER
SERIES GS

► PRODUCT ADVANTAGES

► Proven technology
We have more than 20 years of proven reliability, which ensures uninterrupted production for you

► Adjustable expanding stroke
Prevents the O-ring from overexpanding and ensures consistent production quality

► Query about magnetic field sensor technology
Detecting the end position allows you to have shorter cycle times and an integrated control system

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Ejector jaw**  
   - to shift off the O-ring
2. **Stroke adjustment**  
   - for adjustment of the spread stroke
3. **Energy supply**  
   - possible from several sides
4. **Drive**  
   - two single-acting pneumatic cylinders
5. **Force transfer**  
   - direct via taper
6. **Mounting and positioning**  
   - axial, on the gripper bottom
7. **Sensing slot**  
   - mounting and positioning of magnetic field sensors
8. **Robust, lightweight housing**  
   - hard coated aluminium alloy
9. **Gripper jaw**  
   - individual gripper finger mounting

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**

All information just a click away at: www.zimmer-group.com  
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O-RING ASSEMBLY GRIPPER, OUTER
INSTALLATION SIZE GS65

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

Centering Disc
DST06510

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GVM5

- Magnetic field sensor Angled Cable 5 m
  MFS103KHC

- Magnetic field sensor Angled Cable 0.3 m - Connector M8
  MFS103SKHC

- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500

- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500

- Mounting block
  KB6.5-02

- Inductive proximity switch - Cable 5 m
  NJ6.5-EZ-01

- Inductive proximity switch - Connector M8
  NJ6.5-EZS

- Ejector Jaws Aluminium
  UB65-3

- Expanding Jaws Steel
  UB65-4
**Order no.**

<table>
<thead>
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<th>Technical Data*</th>
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<tbody>
<tr>
<td><strong>GS65-B</strong></td>
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<tr>
<td>Opening stroke adjustable per jaw min. [mm]</td>
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<tr>
<td>Stripping stroke [mm]</td>
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<tr>
<td>Opening force [N]</td>
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<tr>
<td>Recommended O-ring diameter min. [mm]</td>
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<tr>
<td>Recommended O-ring diameter max. [mm]</td>
</tr>
<tr>
<td>Number of gripping jaws [Quantity]</td>
</tr>
<tr>
<td>Closing time [s]</td>
</tr>
<tr>
<td>Opening time [s]</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<tr>
<td>Weight [kg]</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
O-RING ASSEMBLY GRIPPER, OUTER
INSTALLATION SIZE GS810

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

Centering Disc
DST40600

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-8X6

Magnetic field sensor
MFS103KHC

Magnetic field sensor
Angled Cable 0,3 m - Connector M8
MFS1035KHC

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Mounting block
KB6.5-02

Inductive proximity switch
NJB-E2

Inductive proximity switch
Connector M8
NJB-E2S

Ejector Jaws Aluminium
UB810-3

Expanding Jaws Steel
UB810-4
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<td>Opening force [N]</td>
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<tr>
<td>Recommended O-ring diameter min. [mm]</td>
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<tr>
<td>Recommended O-ring diameter max. [mm]</td>
</tr>
<tr>
<td>Number of gripping jaws [Quantity]</td>
</tr>
<tr>
<td>Closing time [s]</td>
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<td>Opening time [s]</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
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<td>Operating pressure min. [bar]</td>
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<td>Operating pressure max. [bar]</td>
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<tr>
<td>Operating temperature min. [°C]</td>
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<td>Operating temperature max. [°C]</td>
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<td>Weight [kg]</td>
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*All data measured at 6 bar
O-RING ASSEMBLY GRIPPER, OUTER
INSTALLATION SIZE GS1015

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY
Mounting block
KB8K
Centering Disc
DST60800

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-8X8

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAWS500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAWS500

Inductive proximity switch
-Cable 5 m
NJ8-E2

Inductive proximity switch
-Connector M8
NJ8-E2S

Ejector Jaws Aluminium
UB1015-3

Expanding Jaws Steel
UB1015-4

Plug-in connector customiz-able Straight - Connector M8
S8-G-3
### Technical Data

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<td>Stripping stroke [mm]</td>
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<tr>
<td>Opening force [N]</td>
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<td>Recommended O-ring diameter min. [mm]</td>
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<tr>
<td>Recommended O-ring diameter max. [mm]</td>
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<tr>
<td>Number of gripping jaws [Quantity]</td>
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<td>Closing time [s]</td>
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<tr>
<td>Opening time [s]</td>
<td>0.05</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>3.0</td>
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<tr>
<td>Operating pressure max. [bar]</td>
<td>8.0</td>
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<tr>
<td>Operating temperature min. [°C]</td>
<td>5.0</td>
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<tr>
<td>Operating temperature max. [°C]</td>
<td>80.0</td>
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<tr>
<td>Weight [kg]</td>
<td>5.4</td>
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</table>

*All data measured at 6 bar*

---

**Diagram:**

- 1: Gripper attachment
- 2: Energy supply
- 3: Fixing for gripper finger
- 4: Integrated slot for magnetic field sensor
- 5: Fixing for mounting block
- 6: Adjustment ring
- 7: Arrestor for adjustment ring
- 8: Adapter
- 9: Gripper
- A: Air connection (expanding stroke)
- B: Air connection (ejector stroke)
- C: Air connection alternate (expanding stroke)
- D: Air connection alternate (ejector stroke)

**Hoseless air feed-through**

Order no. GS1015-B
Opening stroke adjustable per jaw min. [mm] 1.6
Opening stroke adjustable per jaw max. [mm] 10
Stripping stroke [mm] 15
Opening force [N] 1450
Recommended O-ring diameter min. [mm] 40
Recommended O-ring diameter max. [mm] 150
Number of gripping jaws [Quantity] 10
Closing time [s] 0.05
Opening time [s] 0.05
Repetition accuracy +/- [mm] 0.05
Operating pressure min. [bar] 3
Operating pressure max. [bar] 8
Operating temperature min. [°C] 5
Operating temperature max. [°C] 80
Weight [kg] 5.4

*All data measured at 6 bar*
O-RING ASSEMBLY GRIPPER, INNER
SERIES GSI

PRODUCT ADVANTAGES

- **Concentration on the essentials**
  Only pay for what you need - individual standard gripper specific to O-ring inside assembly

- **Adjustable expanding stroke**
  Prevents the O-ring from overexpanding and ensures consistent production quality

- **Query about magnetic field sensor technology**
  Detecting the end position allows you to have shorter cycle times and an integrated control system

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  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
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**BENEFITS IN DETAIL**

1. **Spread jaws**
   - to position the O-ring in the groove of the workpiece

2. **Ejector (piston rod)**
   - to remove the O-ring

3. **Driven by three single-acting pneumatic cylinders**
   - drive for grabber jaws
   - drive for spread jaws
   - drive for ejector

4. **Grabber jaw**
   - to grab the O-ring

5. **Force transfer**
   - via lever and connecting rod

6. **Stroke adjustment on grabber jaws**
   - prevents overstretching of O-ring during assembly

7. **Stroke on spread jaws**
   - adjustable to fit bore diameter of workpiece

8. **Mounting and positioning**
   - axial, on the gripper bottom

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**

All information just a click away at: www.zimmer-group.com
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
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O-RING ASSEMBLY GRIPPER, INNER
INSTALLATION SIZE GSI206

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

Centering Disc
DST06510

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0,3 m - Connector M8
MFS103SKHC

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAG500

Plug in connector customizable Straight - Connector M8
S8-G-3

Plug in connector customizable Straight - Connector M12
S12-G-3
### Technical Data

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<td><strong>Stroke adjustable per jaw max. [mm]</strong></td>
<td>20</td>
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<tr>
<td><strong>Opening stroke adjustable per jaw min. [mm]</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Opening stroke adjustable per jaw max. [mm]</strong></td>
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<tr>
<td><strong>Stripping stroke [mm]</strong></td>
<td>5</td>
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<tr>
<td><strong>Opening force [N]</strong></td>
<td>240</td>
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<td><strong>Possible O-ring diameter at cord size 1 [mm]</strong></td>
<td>11-45</td>
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<tr>
<td><strong>Possible O-ring diameter at cord size 2 [mm]</strong></td>
<td>20-130</td>
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<tr>
<td><strong>Possible O-ring diameter at cord size 3 [mm]</strong></td>
<td>32-130</td>
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<tr>
<td><strong>Possible O-ring diameter at cord size 4 [mm]</strong></td>
<td>42-100</td>
</tr>
<tr>
<td><strong>Number of gripping jaws [Quantity]</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Operating pressure min. [bar]</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Operating pressure max. [bar]</strong></td>
<td>8</td>
</tr>
<tr>
<td><strong>Operating temperature min. [°C]</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>Operating temperature max. [°C]</strong></td>
<td>80</td>
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<tr>
<td><strong>Weight [kg]</strong></td>
<td>1.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
MAGNETIC GRIPPER
SERIES HM1000

PRODUCT ADVANTAGES

- Secure hold during EMERGENCY STOP
  Magnets attached to springs ensure your workpiece remains secure, even during a drop in pressure

- Contact plate that increases friction value
  The replaceable O-ring ensures the high dynamics in your application and protection of your workpiece

- Residual holding force < 1N
  The demagnetised contact surface safeguards the process reliability of dropping off your workpiece

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BENEFITS IN DETAIL

1. Mounting and positioning
   - via centering sleeve and thread
2. Spring
   - for piston return
   - secured holding even in drop pressure
3. Permanent magnet
   - requires no power supply
   - high holding forces
4. Transport safeguarding
5. Robust, lightweight housing
   - hard coated aluminium alloy
6. Single-acting pneumatic cylinders
   - only one pneumatic line required
   - Spring return
7. Contact plate
   - easy replaceable
   - embedded O-ring to increase the friction coefficient

FURTHER INFORMATION IS AVAILABLE ONLINE

Technical Information
All information just a click away at: www.zimmer-group.com
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MAGNETIC GRIPPER
INSTALLATION SIZE HM1030

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

- Locking nut
  - C043910002

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  - GVM5
### Technical Data

<table>
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<th>Order no.</th>
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<td>Max. adhesive force [N]</td>
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<tr>
<td>Operating pressure max. [bar]</td>
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<tr>
<td>Operating temperature min. [°C]</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
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<tr>
<td>Weight [kg]</td>
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1. Gripper attachment
2. Energy supply
3. Filter

Installation size HM1030 / Magnetic gripper / pneumatic / Grippers

Data, Drawings, 3-D Models, Operating Instructions  ← www.zimmer-group.com
MAGNETIC GRIPPER
INSTALLATION SIZE HM1046

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style: GVM5
- Centering Disc: ZE10H7X6
- Ball Joints: KG40
- Ball Joints Steel: KG40ST

www.zimmer-group.com

Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
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<th>Order no.</th>
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<tr>
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<td>Operating temperature max. [°C]</td>
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<td>Air volume per cycle [cm³]</td>
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<tr>
<td>Weight [kg]</td>
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- 1: Gripper attachment
- 2: Energy supply
- 3: Filter

Installation size HM1046 / Magnetic gripper / pneumatic / Grippers
MAGNETIC GRIPPER
INSTALLATION SIZE HM1078

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES

www.zimmer-group.com
### Technical Data

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<td>Operating temperature min. [°C]</td>
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<td>Air volume per cycle [cm³]</td>
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<tr>
<td>Weight [kg]</td>
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1. Gripper attachment
2. Energy supply
3. Filter
4. Safety screw / dummy plug
MAGNETIC GRIPPER
INSTALLATION SIZE HM1097

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

Set Screw
C091505129

Dummy plug
CPNEU00536

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GV1-8X6

Centering Disc
ZE20H7X4

Ball Joints
KG80

Ball Joints Steel
KG80ST

www.zimmer-group.com - Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

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<td>Operating temperature min. [°C]</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<td>Air volume per cycle [cm³]</td>
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![Diagram of Gripper Attachment](image-url)
GRIPPERS FOR SPECIFIC TASKS
OVERVIEW OF SERIES
## ELECTRICAL

<table>
<thead>
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<th>Series</th>
<th>Page</th>
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<td>GEN9100</td>
<td>494</td>
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<tr>
<td>HEM1000</td>
<td>498</td>
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</table>
NEEDLE GRIPPER
SERIES GEN9100

PRODUCT ADVANTAGES

► Plug and Play
Reduce programming and assembly costs to a minimum with the integrated control system and the 2 position query

► Saving energy with pulse control
You only have to supply current briefly when retracting and extending the needle; no energy is required when transporting the workpiece

► Smooth stroke configuration
The needle stroke is displayed via a scale. You can smoothly adjust the needle stroke to fit your application

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www.zimmer-group.com
BENEFITS IN DETAIL

1. **Energy supply**  
   - standardized interface M12 round connector

2. **Drive**  
   - via Pot magnet and coil bobbin according to the coil system principle  
   - energy consumption only at impulse < 25 ms

3. **Position sensing**  
   - integrated Hall sensor  
   - 2 positions monitorable

4. **Status control**  
   - optical LED position display  
   - Needles retracted, needles extended

5. **Stroke adjustment**  
   - infinitely variable  
   - Can be read off the scale

6. **Mounting and positioning**  
   - mounting possible from several sides for versatile positioning

7. **Robust, lightweight housing**  
   - hard coated aluminium alloy

8. **Extending needles**  
   - gripping by penetration

FURTHER INFORMATION IS AVAILABLE ONLINE

- Technical Information  
  All information just a click away at: [www.zimmer-group.com](http://www.zimmer-group.com)
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NEEDLE GRIPPER
INSTALLATION SIZE GEN9102

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Plug-in Connector Angled Cable 10 m - Female M12
KAW1000B8

Plug-in Connector Straight Cable 10 m - Female M12
KAG1000B8

Blubox see page 839
ZUBBOX9000-01
### Technical Data

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<td>Pulse time in extend [ms]</td>
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<tr>
<td>Pulse time in retract [ms]</td>
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<td>Needle stroke adjustable max. [mm]</td>
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<tr>
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<td>0.02</td>
</tr>
<tr>
<td>Current consumption per pulse max. [A]</td>
<td>5</td>
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<tr>
<td>Cycle count max. [cycle/min]</td>
<td>150</td>
</tr>
<tr>
<td>Permanent operation cycle count max. [cycle/min]</td>
<td>120</td>
</tr>
<tr>
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<td>&lt;28</td>
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<td>Operating temperature min. [°C]</td>
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<tr>
<td>Operating temperature max. [°C]</td>
<td>+50</td>
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<td>Debounce time [ms]</td>
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<td>Noise level [db(A)]</td>
<td>&lt;70</td>
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<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
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<tr>
<td>Protection to IEC 60529</td>
<td>IP50</td>
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<td>Weight [kg]</td>
<td>0.33</td>
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### Technical Details

- **Gripper attachment**
- **Energy supply**
- **Scale for stroke setting**
- **Stroke adjustment screw**

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
MAGNETIC GRIPPER
SERIES HEM1000

PRODUCT ADVANTAGES

► Plug and Play
Reduce your installation effort to a minimum by using the single cable solution and the simple control system via plus and minus buttons

► Saving energy with pulse control
You only have to supply current briefly when releasing the workpiece; no energy is required when transporting the workpiece

► Secure hold during EMERGENCY STOP
The magnet provides full holding force when it is not powered, preventing the loss of the workpiece if there is a voltage drop

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Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Mounting and positioning**
   - via centering sleeve and thread
2. **Energy supply**
   - standardized interface M8 round plug
3. **Robust, lightweight housing**
   - hard coated aluminium alloy
4. **Holding solenoid**
   - with electrical switch off

**TERMS**

- **Adhesive surface:** Complete contact surface of the gripper
- **Adhesive force:** refers to 100% coating of the adhesive surface, zero clearance, status at operating temperature on ST37 steel and compliance with the minimum coating thickness
- **Minimum coating thickness:** Minimum thickness of the workpiece to be gripped to reach the max. adhesive force
- **Remaining adhesive force:** max. 3% of the adhesive force
- **On-time:** the time in which current is supplied to the gripper
- **Break time:** the time in which no current is supplied to the gripper
- **Cycle time:** On-time + break time
MAGNETIC GRIPPER
INSTALLATION SIZE HEM1030

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Centering Disc
ZE10H7X6

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector customizable Straight - Connector M8
S6-G-3
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>HEM1030NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. adhesive force [N] *</td>
<td>40</td>
</tr>
<tr>
<td>Minimum coating thickness [mm]</td>
<td>2.5</td>
</tr>
<tr>
<td>Max. residual retention force [N]</td>
<td>1.2</td>
</tr>
<tr>
<td>Duty cycle max. with a cycle time &lt; 2 min [%]</td>
<td>25</td>
</tr>
<tr>
<td>Duty cycle max. with a cycle time &lt; 0.5 min [%]</td>
<td>40</td>
</tr>
<tr>
<td>Input power [W]</td>
<td>3.6</td>
</tr>
<tr>
<td>Voltage [V]</td>
<td>24</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>-25</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.09</td>
</tr>
</tbody>
</table>

*St37-100%, St34-88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%
MAGNETIC GRIPPER
INSTALLATION SIZE HEM1042

PRODUCT SPECIFICATIONS

- Centering Disc
  ZE10H7X6

- Ball Joints
  KG40

- Plug-in connector Straight
  Cable 5m - Socket M8 (female)
  KAG500

- Plug-in connector Angled
  Cable 5m - Socket M8 (female)
  KAW500

- Plug-in connector Customizable Straight - Connector M8
  S8-G-3

RECOMMENDED ACCESSORIES

- Plug-in Connector Customizable Angled - Connector M8
  S8-W-3
### Technical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
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<tr>
<td>Max. adhesive force [N] *</td>
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<tr>
<td>Minimum coating thickness [mm]</td>
<td>3</td>
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<tr>
<td>Max. residual retention force [N]</td>
<td>4.8</td>
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<tr>
<td>Duty cycle max. with a cycle time &lt; 2 min [%]</td>
<td>25</td>
</tr>
<tr>
<td>Duty cycle max. with a cycle time &lt; 0.5 min [%]</td>
<td>40</td>
</tr>
<tr>
<td>Input power [W]</td>
<td>4.6</td>
</tr>
<tr>
<td>Voltage [V]</td>
<td>24</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>-25</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.28</td>
</tr>
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</table>

*St37-100%, St34-88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%*
MAGNETIC GRIPPER
INSTALLATION SIZE HEM1062

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Centering Disc
ZE10H7X6

Ball Joints
KG60

Plugin connector Straight
Cable 5m - Socket M8 (female)
KAG500

Plugin connector Angled
Cable 5m - Socket M8 (female)
KAW500

Plugin connector Customizable
Angled - Connector M8
S8-W-3

www.zimmer-group.com ◄ Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
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<tbody>
<tr>
<td>HEM1062NC</td>
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<p>| | |</p>
<table>
<thead>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Max. adhesive force [N] *</td>
<td>420</td>
</tr>
<tr>
<td>Minimum coating thickness [mm]</td>
<td>4.5</td>
</tr>
<tr>
<td>Max. residual retention force [N]</td>
<td>12.6</td>
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<tr>
<td>Duty cycle max. with a cycle time &lt; 2 min [%]</td>
<td>25</td>
</tr>
<tr>
<td>Duty cycle max. with a cycle time &lt; 0.5 min [%]</td>
<td>40</td>
</tr>
<tr>
<td>Input power [W]</td>
<td>9</td>
</tr>
<tr>
<td>Voltage [V]</td>
<td>24</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>-25</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.66</td>
</tr>
</tbody>
</table>

*St37-100%, St34 -88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%

---

*Gripper attachment*

*Energy supply*
MAGNETIC GRIPPER
INSTALLATION SIZE HEM1080

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

- Centering Disc: ZE10H7X6
- Ball Joints: KG80
- Plug-in connector Straight Cable 5m - Socket M8 (female): KAG500
- Plug-in connector Angled Cable 5m - Socket M8 (female): KAW500
- Plug-in connector customizable Straight - Connector M8: S8-G-3

www.zimmer-group.com
Order no. HEM1080NC

<table>
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<tr>
<th>Order no.</th>
<th>Technical Data</th>
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<tbody>
<tr>
<td>Max. adhesive force [N] *</td>
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<td>Minimum coating thickness [mm]</td>
<td>6</td>
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<tr>
<td>Max. residual retention force [N]</td>
<td>21.6</td>
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<tr>
<td>Duty cycle max. with a cycle time &lt; 2 min [%]</td>
<td>25</td>
</tr>
<tr>
<td>Duty cycle max. with a cycle time &lt; 0.5 min [%]</td>
<td>40</td>
</tr>
<tr>
<td>Input power [W]</td>
<td>13.3</td>
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<tr>
<td>Voltage [V]</td>
<td>24</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>-25</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.3</td>
</tr>
</tbody>
</table>

*St37-100%, St34-88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%
ANGULAR GRIP & ROTATE MODULES
OVERVIEW OF SERIES
<table>
<thead>
<tr>
<th>PNEUMATIC</th>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DGK</td>
<td>510</td>
</tr>
<tr>
<td></td>
<td>DGP400</td>
<td>514</td>
</tr>
</tbody>
</table>
2-JAW ANGULAR ROTARY GRIPPERS
SERIES DGK

PRODUCT ADVANTAGES

“TWO in ONE”

► Smooth stroke configuration
  You can adjust the 180° opening angle to be unique to your application using an adjusting screw

► 2 in 1
  Gripping and swivelling in a module allows optimum utilisation of the installation space

► Individually adjustable
  How you stay flexible: 90° or 180° swivel angle - You decide what your application requires on site

THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
  Find the best product for your specific use:
  www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Stroke adjustment screw**  
   - Infinitely adjustable opening stroke
2. **Gripper jaw**  
   - Individual gripper finger mounting
3. **Guided toggle lever mechanism**  
   - Synchronized the movement of the gripper jaws  
   - Mechanically self-locking
4. **Endposition 0°/90°/180° adjustment**  
   - Endstops for 0°/90°/180° included with purchase
5. **Rotating-drive mechanism**  
   - Robust, wear-resistant
6. **Drive**  
   - Two double-acting pneumatic cylinders
7. **Slot for magnetic field sensor**  
   - Sensing of the rotational position and gripper jaw position

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**
All information just a click away at: www.zimmer-group.com  
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.
2-JAW ANGULAR ROTARY GRIPPERS
INSTALLATION SIZE DGK20

PRODUCT SPECIFICATIONS

Gripping moment diagram

- Gripping force as a function of opening angle.

Forces and moments

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>0.8</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>0.8</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>1</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>150</td>
</tr>
</tbody>
</table>

Rotation time diagram

- Rotation time as a function of mass moment of inertia

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel cont.
  - Flow Control Valves: DRVM5X4
  - Stop 90° + 180°: ANS0065

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Angled Cable 5 m: MFS103KHC
  - Angled Cable 0,3 m - Connector M8: MFS103SKHC

- Magnetic field sensor
  - Straight Cable 5 m: MFS204KHC

- Straight Fittings - Quick Connect Style: GVMS
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DGK20N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per jaw [&quot;]</td>
<td>90</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
<td>150</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>3</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.25</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.25</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>0.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Repetition accuracy +/- [&quot;]</td>
<td>0.05</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>960</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>10</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>9</td>
</tr>
<tr>
<td>Air volume per cycle 90° [cm³]</td>
<td>4.6</td>
</tr>
<tr>
<td>Air volume per cycle 180° [cm³]</td>
<td>9.2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.55</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar

---

**Hoseless air feed-through**

1. Gripper attachment
2. Energy supply
3. Fixing for gripper finger
4. Adjusting screw
5. Integrated slot for magnetic field sensor
6. Stop 180°
7. Stop 90°
8. Direction of rotation
9. Adapter
10. Gripper

A. Air connection (closing)
B. Air connection (opening)
C. Air connection - Rotation (90°/180°)
D. Air connection - Rotation (0°)
E. Alternate air connection (closing)
F. Alternate air connection (opening)
G. Alternate air connection - Rotation (90°/180°)
H. Alternate air connection - Rotation (0°)
2-JAW PARALLEL ROTARY GRIPPERS
SERIES DGP400

► PRODUCT ADVANTAGES

“TWO in ONE”

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

► 2 in 1
Gripping and swivelling in a module allows optimum utilisation of the installation space

► Individually adjustable
How you stay flexible: 90° or 180° swivel angle - You decide what your application requires on site

► THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DGP404N</th>
</tr>
</thead>
<tbody>
<tr>
<td>For external gripping, self-locking, spring closing</td>
<td>C</td>
</tr>
<tr>
<td>For internal gripping, self-locking, spring opening</td>
<td>O</td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Removable centering sleeves**
   - quick and economical positioning of the gripper fingers

2. **Wedge hook mechanism**
   - synchronized the movement of the gripper jaws

3. **Precise T-Slot guide**
   - high forces and moments capacity

4. **Endposition 0°/90°/180° adjustment**
   - endstops for 0°/90°/180° included with purchase

5. **Rotating-drive mechanism**
   - robust, wear-resistant

6. **Drive**
   - two double-acting pneumatic cylinders

7. **Slot for magnetic field sensor**
   - sensing of the rotational position and gripper jaw position

8. **Integrated gripping force safety device**
   - optional via integrated spring (C or O models)

---

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**

All information just a click away at: www.zimmer-group.com

Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.

Quick, clear and always up-to-date.
2-JAW PARALLEL ROTARY GRIPPERS
INSTALLATION SIZE DGP404

**PRODUCT SPECIFICATIONS**

**Gripping moment diagram**

Gripping force as a function finger length.

Colored area: increased wear and tear to be expected

**Forces and moments**

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

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mx [Nm]</td>
<td>15</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>10</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>300</td>
</tr>
</tbody>
</table>

**Rotation time diagram**

Rotation time as a function of mass moment of inertia

**INCLUDED IN DELIVERY**

- Flow Control Valves - with Swivel joint
  - DRVMSX4
- Centering Disc
  - DST40400
- Stop 90° + 180°
  - ANS0065

**RECOMMENDED ACCESSORIES**

- Magnetic field sensor Angled Cable 5 m
  - MFS103KHC
- Magnetic field sensor Angled Cable 0.3 m - Connector M8
  - MFS103SKHC
- Magnetic field sensor Straight Cable 5 m
  - MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  - MFS204SKHC
- Straight Fittings - Quick Connect Style
  - GVMS
Order no. | Technical Data* |
---|---|
| DGP404N | DGP404NC | DGP404NO |
Stroke per jaw (mm) | 4 | 4 | 4 |
Gripping force in opening [N] | 115 | 155 | 155 |
Gripping force in closing [N] | 115 | 155 | 155 |
Gripping force secured by spring min. [N] | 40 | 40 | 40 |
Closing time / Opening time [s] | 0.01 / 0.01 | 0.015 / 0.015 | 0.015 / 0.015 |
Torque [Nm] | 0.5 | 0.5 | 0.5 |
Repetition accuracy +/- [mm] | 0.05 | 0.05 | 0.05 |
Repetition accuracy +/- ["] | 0.05 | 0.05 | 0.05 |
Axial bearing load [N] | 960 | 960 | 960 |
Radial bearing load [Nm] | 10 | 10 | 10 |
Operating temperature [°C] | 5 ... 80 | 5 ... 80 | 5 ... 80 |
Air volume per cycle [cm³] | 3 | 5 | 5 |
Air volume per cycle 90° [cm³] | 4.5 | 4.5 | 4.5 |
Air volume per cycle 180° [cm³] | 9 | 9 | 9 |
Weight [kg] | 0.44 | 0.48 | 0.48 |

*All data measured at 6 bar
### SWIVELING AND ROTARY MODULES
#### THE SERIES AT A GLANCE

<table>
<thead>
<tr>
<th>PRODUCTS</th>
<th>Torque [Nm]</th>
<th>Swivel angle [°]</th>
<th>Number of installation sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotor cylinder, pneumatic</td>
<td></td>
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</tr>
<tr>
<td>PRN series</td>
<td>0,15</td>
<td>90</td>
<td>280</td>
</tr>
<tr>
<td>SH series</td>
<td>0,59-7,2</td>
<td>90</td>
<td>360</td>
</tr>
<tr>
<td>Flat swivel units, pneumatic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSF series</td>
<td>0,3-1,2</td>
<td>90</td>
<td>180</td>
</tr>
<tr>
<td>SF series</td>
<td>1,5</td>
<td>130</td>
<td>180</td>
</tr>
<tr>
<td>Rotary modules, electric</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES series</td>
<td>1,5</td>
<td>60</td>
<td>300</td>
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<tr>
<td>Angle pivot units, pneumatic</td>
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</tr>
<tr>
<td>SWM1000 series</td>
<td>10</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>SW series</td>
<td>1,5</td>
<td>120</td>
<td>180</td>
</tr>
<tr>
<td>Swivel jaws, pneumatic</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SB* series</td>
<td>0,1-1,6</td>
<td>90</td>
<td>180</td>
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<tr>
<td>SBZ series</td>
<td>1,2-9,6</td>
<td>90</td>
<td>180</td>
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</tbody>
</table>

*Specifications for setup in pairs*
<table>
<thead>
<tr>
<th>AP class</th>
<th>Magnetic field sensor</th>
<th>Inductive sensor</th>
<th>Integrated sensing</th>
<th>Positioning, 2 positions</th>
<th>Positioning, 3 positions</th>
<th>Positioning, 4 positions</th>
<th>Positioning, freely selectable</th>
<th>Elastomer end position damping</th>
<th>Power/Stop end position damping</th>
<th>Adjusting stop angle</th>
<th>IP class</th>
<th>Fluid feed-through</th>
<th>Electrical feed-through</th>
<th>Mechanical self limitation</th>
<th>Maintenance-free cycles</th>
<th>Maintenance-free revolutions</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>3</td>
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</tr>
<tr>
<td>3</td>
<td>•</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
ROTARY CYLINDERS
OVERVIEW OF SERIES

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
### PNEUMATIC

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image]</td>
<td>![Image]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRN</td>
<td>522</td>
</tr>
<tr>
<td>SH</td>
<td>544</td>
</tr>
</tbody>
</table>
**ROUNDE CYLINDERS**
**SERIES PRN**

► **PRODUCT ADVANTAGES**

“The economical”

► **Concentration on the essentials**
The most economic type of swivelling reduces your production costs

► **Dampened end position**
Using the hydraulic brake allows you to move up to the end positions gently, increasing the process reliability and durability of your application

► **Forged drive shaft**
This shaft is not only robust, but can be individually adjusted, e.g. with supply holes through the axis

► **THE BEST PRODUCT FOR YOUR APPLICATION**

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

<table>
<thead>
<tr>
<th>HOW TO ORDER CORRECTLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>► The product order numbers are arranged according to this diagram:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PRN30-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation angle 90°</td>
<td>90</td>
</tr>
<tr>
<td>Rotation angle 100°</td>
<td>100</td>
</tr>
<tr>
<td>Rotation angle 180°</td>
<td>180</td>
</tr>
<tr>
<td>Swivel angle 270°</td>
<td>270</td>
</tr>
<tr>
<td>Swivel angle 280°</td>
<td>280</td>
</tr>
</tbody>
</table>

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
**STARTING ANGLE**

- **Starting angle**
- **Swivel angle**

<table>
<thead>
<tr>
<th>PRN1</th>
<th>PRN20</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRN3</td>
<td>PRN30</td>
</tr>
<tr>
<td>PRN10</td>
<td>PRN50</td>
</tr>
<tr>
<td>PRN150</td>
<td>PRN300</td>
</tr>
<tr>
<td>PRN800</td>
<td></td>
</tr>
</tbody>
</table>

**SERIES CHARACTERISTICS**

- Number of installation sizes: 9
- Swivel angle: 90° - 280°
- Torque: 0,15 Nm - 247 Nm
- Weight: 0,04 kg - 12,5 kg
- AP class: 1

- Inductive sensor
- Positionability - 2 positions
- IP54

1.5 million maintenance-free cycles (max.)

[www.zimmer-group.com](http://www.zimmer-group.com)
ROTARY CYLINDERS
INSTALLATION SIZE PRN1

PRODUCT SPECIFICATIONS

**Moment of inertia**

<table>
<thead>
<tr>
<th>kg cm²</th>
<th>Shows the expected swivel time vs the calculated moment of inertia</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.4</td>
<td>PRN1-90-B</td>
</tr>
<tr>
<td>0.8</td>
<td>PRN1-180-B</td>
</tr>
<tr>
<td>1.2</td>
<td>PRN1-270-B</td>
</tr>
</tbody>
</table>

Data measured at 6 bar and horizontal mounting position

**Forces and moments**

Shows the maximum static shaft load.

<table>
<thead>
<tr>
<th>FY [N]</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>FZ [N]</td>
<td>30</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style: GVM5
- Flow Control Valves - with Swivel joint: DRVMSX4
- Pressure Safety Valve: DSV1-8
- Flange: F1-P
- Angle flange: F1-LB

RECOMMENDED ACCESSORY ROTATION LIMITER

- Rotation limiter: DB1-B
- Inductive proximity switch - Cable 5 m: NJ3-E2-02
- Plug-in connector customizable Straight - Connector MB: S8-G-3

www.zimmer-group.com
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PRN1-90-B</th>
<th>PRN1-180-B</th>
<th>PRN1-270-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>270</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>90</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.1</td>
<td>0.17</td>
<td>0.24</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2.8</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

**[Diagram]**

1. Energy supply
2. Fixing Rotor
A. Air connection (0°/90°/180°/270°)
B. Air connection (90°/180°/270°/0°)
C. Alternate air connection 0°/90°/180°/270°
D. Alternate air connection 90°/180°/270°/0°

---

Data, Drawings, 3-D Models, Operating Instructions  
[www.zimmer-group.com](http://www.zimmer-group.com)
PRODUCT SPECIFICATIONS

► Moment of inertia

Data measured at 6 bar and horizontal mounting position.

Shows the expected swivel time vs the calculated moment of inertia.

► Forces and moments

Shows the maximum static shaft load.

Swivel time in [sec]

FY [N] 4
FZ [N] 40

RECOMMENDED ACCESSORIES

Straight Fittings - Quick Connect Style
GVM5

Flow Control Valves - with Swivel joint
DRVM5X4

Pressure Safety Valve
DSV1-8

Flange
F3-P

Angle Flange
F3-LB

RECOMMENDED ACCESSORY ROTATION LIMITER

Rotation limiter
DB3

Inductive proximity switch - Cable 5 m
NJ3-E2-02

Plug-in connector customizable Straight - Connector MB
S8-G-3
**Technical Data***

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PRN3-90-B</th>
<th>PRN3-180-B</th>
<th>PRN3-270-B</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>270</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>90</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>0.38</td>
<td>0.38</td>
<td>0.38</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.13</td>
<td>0.2</td>
<td>0.28</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>6.8</td>
<td>6.8</td>
<td>6.8</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

**Energy supply**

**Fixing Rotor**

**A** Air connection (0°-90°/180°/270°)

**B** Air connection (90°/180°/270°)

**Alternate air connection 0°/90°/180°/270°**

**Alternate air connection 90°/180°/270°-0°**
ROTARY CYLINDERS
INSTALLATION SIZE PRN10

► PRODUCT SPECIFICATIONS

- Moment of inertia
  ![Graph showing moment of inertia vs swivel time]
  Shows the expected swivel time vs the calculated moment of inertia.

- Forces and moments
  Shows the maximum static shaft load.

| FY [N] | 4 |
| FZ [N] | 50 |

- Data measured at 6 bar and horizontal mounting position

► RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GVM5

- Flow Control Valves - with Swivel joint
  DRVM5X4

- Pressure Safety Valve
  DSV1-8

- Flange
  F10-P

- Angle Flange
  F10-LB

► RECOMMENDED ACCESSORY ROTATION LIMITER

- Rotation Limiter
  DB10

- Stop Stroke Adjustment Screws
  AI-MBX1-38

- Inductive proximity switch - Cable 5 m
  NJ12-E2

- Inductive proximity switch - Connector M8
  NJ12-E2S

- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PRN10-90-B</th>
<th>PRN10-180-B</th>
<th>PRN10-270-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>270</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>90</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.13</td>
<td>0.2</td>
<td>0.28</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>19.6</td>
<td>19.6</td>
<td>19.6</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

### Energy supply
- 1 Energy supply

### Fixing Rotor
- 2 Fixing Rotor

### Air connection
- A Air connection (0°-90°/180°/270°)
- B Air connection (90°/180°/270°)

### Alternate air connection
- C Alternate air connection 0°-90°/180°/270°
- D Alternate air connection 90°/180°/270°
PRODUCT SPECIFICATIONS

Moment of Inertia

Forces and moments

Swivel time in sec

Data measured at 6 bar and horizontal mounting position

(RECOMMENDED ACCESSORIES)

Straight Fittings - Quick Connect Style
GVM5

Flow Control Valves - with Swivel joint
DRVM5X4

Pressure Safety Valve
DSV1-8

Flange
F20-P

Angle Flange
F20-LB

(RECOMMENDED ACCESSORY ROTATION LIMITER)

Rotation limiter
DB20

Stop Stroke Adjustment Screws
AI-M8X1-38

Inductive proximity switch - Cable 5 m
NJ12-E2

Inductive proximity switch - Connector M8
NJ12-E2S

Plug-in connector Angled Cable 5m - Socket M8 (female)
KA500

(www.zimmer-group.com)
<table>
<thead>
<tr>
<th>Order no.</th>
<th>PRN20-90-B</th>
<th>PRN20-180-B</th>
<th>PRN20-270-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>270</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
<td>0° / +4°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>90</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.14</td>
<td>0.25</td>
<td>0.34</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>10</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>34</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
ROTARY CYLINDERS
INSTALLATION SIZE PRN30

PRODUCT SPECIFICATIONS

■ Moment of inertia

<table>
<thead>
<tr>
<th>kg m²</th>
<th>Data measured at 6 bar and horizontal mounting position</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.004</td>
<td>Shows the expected swivel time vs the calculated moment of inertia</td>
</tr>
<tr>
<td>0.008</td>
<td></td>
</tr>
<tr>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>0.006</td>
<td></td>
</tr>
</tbody>
</table>

■ Forces and moments

<table>
<thead>
<tr>
<th>Forces and moments</th>
<th>Shows the maximum static shaft load.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY [N]</td>
<td>30</td>
</tr>
<tr>
<td>FZ [N]</td>
<td>400</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GV1-8X6
- Flow Control Valves - with Swivel joint
  DRV1-8X6
- Pressure Safety Valve
  DSV1-8
- Flange
  F30-P
- Angle Flange
  F30-LB

RECOMMENDED ACCESSORY ROTATION LIMITER

- Rotation limiter
  DB30
- Stop Stroke Adjustment Screws
  AI-M8X1-38
- Inductive proximity switch - Cable 5 m
  NJ12-E2
- Inductive proximity switch - Connector M8
  NJ12-E2S
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
<table>
<thead>
<tr>
<th>Order no.</th>
<th>PRN30-90</th>
<th>PRN30-180</th>
<th>PRN30-270</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>270</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +3°</td>
<td>0° / +3°</td>
<td>0° / +3°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>45</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>4.1</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.17</td>
<td>0.33</td>
<td>0.5</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
<td>+60</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>74</td>
<td>74</td>
<td>86</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
**PRODUCT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Moment of Inertia</th>
<th>Forces and Moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>(kg m²) Shows the expected swivel time vs the calculated moment of inertia</td>
<td>Shows the maximum static shaft load.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRN50-100</th>
<th>PRN50-180</th>
<th>PRN50-280</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.012</td>
<td>0.024</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Data measured at 6 bar and horizontal mounting position.

<table>
<thead>
<tr>
<th>Swivel Time in [sec]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1.5 2 2.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRN50-100</th>
<th>PRN50-180</th>
<th>PRN50-280</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>20.5</td>
</tr>
</tbody>
</table>

**RECOMMENDED ACCESSORIES**

- Straight Fittings - Quick Connect Style
  - GV1-8X6

- Flow Control Valves - with Swivel joint
  - DRV1-8X6

- Pressure Safety Valve
  - DSV1-8

- Flange
  - F50-P

- Angle Flange
  - F50-LB

**RECOMMENDED ACCESSORY ROTATION LIMITER**

- Rotation limiter Stop Stroke Adjustment Screws
  - DB50
  - AI-M8X1-38

- Inductive proximity switch - Cable 5 m
  - NJ12-E2

- Inductive proximity switch - Connector M8
  - NJ12-E2S

- Plug-in connector Angled Cable 5m - Socket M8 (female)
  - KAW500

**RECOMMENDED ACCESSORY OIL DAMPER**

- Oil damper see page 542
  - CRN50

- Stop Lever 90° / Starting Angle 45°
  - A50-90

- Stop Lever 180° / Starting Angle 45°
  - A50-180-B

- Stop Lever 270° / Starting Angle 45°
  - A50-270

---

**Data, Drawings, 3-D Models, Operating Instructions**

www.zimmer-group.com
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>PRN50-90</th>
<th>PRN50-180-B</th>
<th>PRN50-270</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>270</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +3°</td>
<td>0° / +3°</td>
<td>0° / +3°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>45</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>12.8</td>
<td>5.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.17</td>
<td>0.33</td>
<td>0.5</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
<td>+60</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>86</td>
<td>102</td>
<td>124</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.8</td>
<td>0.75</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

1. Energy supply
2. Fixing Rotor
3. Air connection (90°/180°/270°-0°)
4. Air connection (0°-90°/180°/270°)

---

Diagram showing installation size PRN50, Rotary Cylinders, pneumatic, Swivel- and Rotary Modules.
# ROTARY CYLINDERS
## INSTALLATION SIZE PRN150

### PRODUCT SPECIFICATIONS

#### Moment of Inertia

<table>
<thead>
<tr>
<th>PRN150-100</th>
<th>PRN150-180</th>
<th>PRN150-280</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.12 kg m²</td>
<td>0.24 kg m²</td>
<td>0.3 kg m²</td>
</tr>
</tbody>
</table>

Shows the expected swivel time vs. the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

### Forces and Moments

<table>
<thead>
<tr>
<th>FY [N]</th>
<th>88</th>
</tr>
</thead>
<tbody>
<tr>
<td>FZ [N]</td>
<td>1170</td>
</tr>
</tbody>
</table>

Shows the maximum static shaft load.

### RECOMMENDED ACCESSORIES

- **Straight Fittings - Quick Connect Style**
  - GV1-4X8

- **Flow Control Valves - with Swivel joint**
  - DRV1-4X8

- **Pressure Safety Valve**
  - DSV1-8

- **Flange**
  - F150-P

- **Angle Flange**
  - F150-LB

### RECOMMENDED ACCESSORY ROTATION LIMITER

- **Rotation limiter**
  - DB150

- **Stop Stroke Adjustment Screws**
  - AI-M10X1-70

- **Inductive proximity switch - Cable 5 m**
  - NJ12-E2

- **Inductive proximity switch - Connector M8**
  - NJ12-E2S

- **Plug-in connector Angled Cable 5 m - Socket M8 (female)**
  - KAW500

### RECOMMENDED ACCESSORY OIL DAMPER

- **Oil damper**
  - see page 542

- **CRN150**

- **Stop Lever 90° / Starting Angle 45°**
  - A150-90

- **Stop Lever 180° / Starting Angle 45°**
  - A150-180-B

- **Stop Lever 270° / Starting Angle 45°**
  - A150-270

---

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<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRN150-90</td>
</tr>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +3°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>41.5</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.25</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>246</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.9</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
PRODUCT SPECIFICATIONS

Moment of inertia

Data measured at 6 bar and horizontal mounting position

<table>
<thead>
<tr>
<th>kg m²</th>
<th>Swivel time in [sec]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2.5</td>
<td>5</td>
</tr>
</tbody>
</table>

Shows the expected swivel time vs the calculated moment of inertia.

Forces and moments

Shows the maximum static shaft load.

FY [N] 145
FZ [N] 1950

RECOMMENDED ACCESSORIES

- Straight Fittings - Barb Style Connection: GV3-8X13ID
- Flow Control Valves - In Line: DRV1-4I
- Pressure Safety Valve: DSV1-8
- Angle flange: F300-LB

RECOMMENDED ACCESSORY ROTATION LIMITER

- Rotation limiter: DB300
- Stop Stroke Adjustment Screws: AI-M10X1-70
- Inductive proximity switch - Cable 5 m: NJ12-E2
- Inductive proximity switch - Connector M8: NJ12-E2S
- Plug-in connector Angle: Cable 5 m - Socket M8 (female): KAW500

RECOMMENDED ACCESSORY OIL DAMPER

- Oil damper: CRN300
- Stop Lever 90° / Starting Angle 45°: A300-90
- Stop Lever 180° / Starting Angle 45°: A300-180-B
- Stop Lever 270° / Starting Angle 45°: A300-270
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWIVEL ANGLE</td>
<td>PRN300-90</td>
</tr>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +3°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>83</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.33</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>542</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
ROTARY CYLINDERS
INSTALLATION SIZE PRN800

► PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of inertia</th>
<th>Forces and moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows the expected swivel time vs the calculated moment of inertia.</td>
<td>Shows the maximum static shaft load.</td>
</tr>
</tbody>
</table>

![Graph showing swivel time vs moment of inertia](image)

Data measured at 6 bar and horizontal mounting position

| FY [N] | 490 |
| FZ [N] | 4900 |

► RECOMMENDED ACCESSORIES

<table>
<thead>
<tr>
<th>Straight Fittings - Barb Style Connection</th>
<th>Flow Control Valves - In Line</th>
<th>Pressure Safety Valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>GV1-2X13ID</td>
<td>DRV1-4I</td>
<td>DSV1-8</td>
</tr>
</tbody>
</table>

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>PRN800-90</th>
<th>PRN800-270</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>270</td>
</tr>
<tr>
<td>Tolerance swivel angle [°]</td>
<td>0° / +3°</td>
<td>0° / +3°</td>
</tr>
<tr>
<td>Starting Angle [°]</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>247</td>
<td>123</td>
</tr>
<tr>
<td>Swivel time [s]</td>
<td>0.45</td>
<td>1</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>+60</td>
<td>+60</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1548</td>
<td>2092</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>12.5</td>
<td>11</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

1. Energy supply
2. Fixing Rotor
3. Air connection (0°-90°/180°/270°)
4. Air connection (90°/180°/270°-0°)
<table>
<thead>
<tr>
<th>Order no.</th>
<th>CRN50</th>
<th>CRN150</th>
<th>CRN300</th>
</tr>
</thead>
<tbody>
<tr>
<td>suitable for</td>
<td>PRN50</td>
<td>PRN150</td>
<td>PRN300</td>
</tr>
<tr>
<td>Brake angle [°]</td>
<td>11</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Energy absorption per stroke max. [Nm]</td>
<td>3</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Energy absorption per stroke max. [Nmm/h]</td>
<td>12000</td>
<td>43200</td>
<td>B4000</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Weight [g]</td>
<td>240</td>
<td>420</td>
<td>780</td>
</tr>
</tbody>
</table>

**Technical Data**

![Diagram of OIL DAMPER FOR PNEUMATIC ROTOR]

**Order no.**

<p>| A  | B  | C  | D  | E  | F  | G  | H  | J  | K  | L  | M  | N  | P  | R  | S  | T  | U  | V  | W  | Y  | Z  | AA | CC | DD | EE |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| CRN50 | 50.6 | 6.0 | 3.2 | 4.5 | 14 | 16 | 8.5 | Ø14.4 | 56.6 | 9.9 | 40 | 50 | 4.0 | 37 | 17.0 | 9.2 | Ø8 | 7.2 | 39.0 | 56 | 12.5 | Ø45 | 6.5 | M6x1x12 | 34 | 8 |
| CRN150 | 58.5 | 7.2 | 36 | 4.5 | 16 | 18 | 8.5 | Ø18.4 | 70.7 | 11.3 | 50 | 62 | 9.5 | 49 | 25.5 | 11.4 | Ø10 | 8.0 | 60.6 | 80 | 15.0 | Ø70 | 10.0 | M8x1.25x16 | 46 | 12 |
| CRN300 | 62.5 | 7.2 | 42 | 4.5 | 16 | 21 | 12.0 | Ø22.5 | 91.9 | 12.7 | 65 | 87 | 8.0 | 61 | 33.2 | 14.1 | Ø12 | 12.0 | 69.2 | 95 | R22.5 | Ø80 | 15.0 | M10x1.5x20 | 62 | 18 |</p>
<table>
<thead>
<tr>
<th>STOP LEVER FOR OIL DAMPER</th>
</tr>
</thead>
</table>

![Image of stop lever for oil damper]

### STOP LEVER PRN50

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Swivel angle [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A50-90</td>
<td>90</td>
</tr>
<tr>
<td>A50-180-B</td>
<td>180</td>
</tr>
<tr>
<td>A50-270</td>
<td>270</td>
</tr>
</tbody>
</table>

### STOP LEVER PRN150

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Swivel angle [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A150-90</td>
<td>90</td>
</tr>
<tr>
<td>A150-180-B</td>
<td>180</td>
</tr>
<tr>
<td>A150-270</td>
<td>270</td>
</tr>
</tbody>
</table>

### STOP LEVER PRN300

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Swivel angle [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A300-90</td>
<td>90</td>
</tr>
<tr>
<td>A300-180-B</td>
<td>180</td>
</tr>
<tr>
<td>A300-270</td>
<td>270</td>
</tr>
</tbody>
</table>
**PRODUCT ADVANTAGES**

“The flexible”

► **Movable to four positions**

The two separately or jointly controlled rotors provide you with the greatest flexibility in positioning your workpieces.

► **High torque rating**

The optimal ratio of installation space and torque reduces interference contours and creates precious space in your application.

► **360° swivel angle**

Do you want your application to be flexible and individualised? The infinitely variable 360° adjustable swivel angle lets you!

**THE BEST PRODUCT FOR YOUR APPLICATION**

► **Our products love the challenge!**

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

Find the best product for your specific use:

www.zimmer-group.com
BENEFITS IN DETAIL

1. **0-position**
   - High-pressure air in 1B and 2B: Internal- and external blades go to the 0-position

2. **First 90°-intermediate adjustment**
   - High-pressure air A and A': The external blade swivels up to the external limit stop (Stopper) at 90°.

3. **Second 90°-intermediate setting**
   - High-pressure air B and B': The external blade swivels with the internal 90° limit stop to the 0-position. The internal blade swivels 180° set opposite each other.

4. **Third 90°-intermediate adjustment**
   - High-pressure air A and B: The external blade swivels with the internal blade in the movement direction at 90°.

SERIES CHARACTERISTICS

- **Number of installation sizes**: 2
- **Swivel angle**: 360°
- **Torque**: 0.59 Nm - 7.2 Nm
- **Weight**: 0.52 kg - 1.13 kg
- **AP class**: 1

Positionability - 4 positions

Adjustable swivel angle

IP 54

IP54

1.5 million maintenance-free cycles (max.)
PRODUCT SPECIFICATIONS

- **Moment of Inertia**
  
  Shows the expected swivel time vs. the calculated moment of inertia.

- **Forces and Moments**
  
  Shows the maximum static shaft load.

<table>
<thead>
<tr>
<th></th>
<th>FY [N]</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FZ [N]</td>
<td>60</td>
</tr>
</tbody>
</table>

**Data measured at 6 bar and horizontal mounting position**

RECOMMENDED ACCESSORIES

**Straight Fittings - Quick Connect Style**
- GVM5

**Flow Control Valves - with Swivel Joint**
- DRVM5X4
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SH-5</strong></td>
<td></td>
</tr>
<tr>
<td>Swivel angle [°]</td>
<td>360</td>
</tr>
<tr>
<td>Torque outer blade [Nm]</td>
<td>2.73</td>
</tr>
<tr>
<td>Torque inner blade [Nm]</td>
<td>0.59</td>
</tr>
<tr>
<td>Swivel time outer blade [s]</td>
<td>0.8</td>
</tr>
<tr>
<td>Swivel time inner blade [s]</td>
<td>0.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
</tr>
<tr>
<td>Air volume per cycle outer blade [cm³]</td>
<td>14</td>
</tr>
<tr>
<td>Air volume per cycle inner blade [cm³]</td>
<td>56</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.52</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

* Energy supply
* Fixing Rotor
A internal air connection 0°-180°
B internal air connection 180°-0°
C external air connection 0°-180° (alternativ)
D external air connection 180°-0° (alternativ)
E external blade
F internal blade
Swivel angle min. 30°
Swivel angle max. 180°
ROTARY CYLINDERS
INSTALLATION SIZE SH-20

PRODUCT SPECIFICATIONS

- Moment of inertia
  Shows the expected swivel time vs the calculated moment of inertia.

- Forces and moments
  Shows the maximum static shaft load.

Data measured at 6 bar and horizontal mounting position.

<table>
<thead>
<tr>
<th></th>
<th>FY [N]</th>
<th>FZ [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner blade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outer blade</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- Straight Fittings - Quick Connect Style
  GV1-8X6

- Flow Control Valves - with Swivel joint
  DRV1-8X6

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### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SH-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>360</td>
</tr>
<tr>
<td>Torque outer blade [Nm]</td>
<td>7.2</td>
</tr>
<tr>
<td>Torque inner blade [Nm]</td>
<td>2.35</td>
</tr>
<tr>
<td>Swivel time outer blade [s]</td>
<td>1.1</td>
</tr>
<tr>
<td>Swivel time inner blade [s]</td>
<td>0.8</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
</tr>
<tr>
<td>Air volume per cycle outer blade [cm³]</td>
<td>72</td>
</tr>
<tr>
<td>Air volume per cycle inner blade [cm³]</td>
<td>23</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.13</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram of installation size SH-20 / Rotary Cylinders / pneumatic / Swivel- and Rotary Modules](image)

- Energy supply
- Fixing Rotor
- Internal air connection 0°-180°
- Internal air connection 180°-0°
- External air connection 0°-180° (alternativ)
- External air connection 180°-0° (alternativ)
- External blade
- Internal blade
- Swivel angle min. 30°
- Swivel angle max. 180°
### PNEUMATIC

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSF</td>
<td>552</td>
</tr>
<tr>
<td>SF-C</td>
<td>560</td>
</tr>
</tbody>
</table>
FLAT SWIVEL UNITS
SERIES MSF

PRODUCT ADVANTAGES

“The unique”

► Decide for yourself!
Flange connection or journal shaft, with or without shock absorbers: The multitude of variants ensure you always find what you need

► Flat structure
Thanks to the reverse double piston drive, the unit can work in operations requiring flat conditions. This is how you can build your application to save more space

► Infinitely adjustable swivel angle
Become flexible and unique with the completely adjustable swivel angle that also reduces set up times

VERSIONS

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without shock absorber</td>
<td>N</td>
</tr>
<tr>
<td>With shock absorber</td>
<td>S</td>
</tr>
<tr>
<td>Tool holder via flange</td>
<td>-F001</td>
</tr>
<tr>
<td>Tool holder via shaft extension</td>
<td>-F002</td>
</tr>
<tr>
<td>Tool holder via flange with integrated 2-way rotary distributor</td>
<td>-D2</td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Air flow control valve**
   - for speed regulation
   - included in scope of delivery
2. **Robust, lightweight housing**
   - hard coated aluminium alloy
3. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning
4. **Tool intake**
   - with shaft extension or flange available
5. **Force transfer**
   - rack and pinion
6. **Up to 2 way integrated air feed-through**
   - for hoseless air transfer
   - hose package does not have to be pivoted
7. **Sensing slot**
   - mounting and positioning of magnetic field sensors
8. **Integrated and patented hydraulic shock absorbers**
   - adjustable end position damping

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td>Number of installation sizes</td>
<td>3</td>
</tr>
<tr>
<td>Swivel angle</td>
<td>90° - 180°</td>
</tr>
<tr>
<td>Torque</td>
<td>0,3 Nm - 1,2 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>0,17 kg - 0,46 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>2</td>
</tr>
<tr>
<td>Elastomer end position damping</td>
<td></td>
</tr>
<tr>
<td>Magnetic field sensor</td>
<td></td>
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<tr>
<td>Powerstop end position damping</td>
<td></td>
</tr>
<tr>
<td>Positionability - 2 positions</td>
<td></td>
</tr>
<tr>
<td>Fluid feed-through</td>
<td></td>
</tr>
<tr>
<td>Adjustable swivel angle</td>
<td></td>
</tr>
<tr>
<td>10 million maintenance-free cycles (max.)</td>
<td></td>
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</tbody>
</table>

Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com
FLAT SWIVEL UNITS
INSTALLATION SIZE MSF34

PRODUCT SPECIFICATIONS

Moment of Inertia

![Graph showing the expected swivel time vs the calculated moment of inertia.]

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  DRVIM3X4
- Centering Disc
  BDST40800

RECOMMENDED ACCESSORIES

- Straight Fittings - Barb Style Connection
  GVM3
- Magnetic field sensor Angled Cable 0,3 m - Connector M8
  MFS103SKHC
- Magnetic field sensor Straight Cable 0,3 m - Connector M8
  MFS204SKHC
- 2 Position Sensor Cable 0,3 m - Connector M8
  MFSP2SKHC
- Plug-in connector Angled Cable 5m - Socket M8 (female)
  KAWS00
- Plug-in connector customizable Straight - Connector M8
  S8-G-3
- Plug-in connector customizable Straight - Connector M12
  S12-G-3
- Pressure Safety Valve
  DSV1-8
### Technical Data*

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<thead>
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<th>Order no.</th>
<th>MSF34N-F001</th>
<th>MSF34S-F001</th>
<th>MSF34N-F002</th>
<th>MSF34S-F002</th>
<th>MSF34N-D2</th>
<th>MSF34S-D2</th>
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<tr>
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<td>90-180</td>
<td>90-180</td>
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<td>Torque [Nm]</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
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<td>Repetition accuracy +/- [°]</td>
<td>0.07</td>
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<td>Air feed-through [Quantity]</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Radial bearing load [Nm]</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
<td>5.5</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<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>
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<tr>
<td>Operating temperature min. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Air volume per cycle 90° [cm³]</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Air volume per cycle 180° [cm³]</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Weight [kg]</td>
<td>0.17</td>
<td>0.18</td>
<td>0.17</td>
<td>0.18</td>
<td>0.2</td>
<td>0.21</td>
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</table>

*All data measured at 6 bar

---

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FLAT SWIVEL UNITS
INSTALLATION SIZE MSF40

PRODUCT SPECIFICATIONS

Moment of Inertia

![Graph showing moment of inertia vs expected swivel time]

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRVM3X4

Centering Disc
BDST40800

RECOMMENDED ACCESSORIES

Straight Fittings - Barb Style Connection
GVM3

Magnetic field sensor Angled Cable 0,3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 0,3 m - Connector M8
MFS204SKHC

2 Position Sensor Cable 0,3 m - Connector M8
MFSP2SKHC

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector customisable Straight - Connector M8
S8-G-3

Plug-in connector customisable Straight - Connector M12
S12-G-3

Plug-in connector customisable Straight - Connector M (female)

Pressure Safety Valve
DSV1-8

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>MSF40N-F001</td>
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<tr>
<td>Swivel angle [°]</td>
<td>90-180</td>
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<tr>
<td>Torque [Nm]</td>
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<tr>
<td>Repetition accuracy ±/-[°]</td>
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<tr>
<td>Air feed-through [Quantity]</td>
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<tr>
<td>Radial bearing load [N/mm]</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle 90° [cm³]</td>
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<tr>
<td>Air volume per cycle 180° [cm³]</td>
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</tr>
<tr>
<td>Weight [kg]</td>
<td>0.26</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Fixings for swivel unit**
**Energy supply**
**Integrated air feed-through**
**Shock absorber**
**Fixing tool side**
**Internal positive stop**
**Direction of rotation**
**Integrated slot for magnetic field sensor**
**Air connection 90°-180°**
**Air connection 0°**
# FLAT SWIVEL UNITS
## INSTALLATION SIZE MSF44

### PRODUCT SPECIFICATIONS

#### Moment of Inertia

![Graph showing moment of inertia](image)

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

### INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint: DRVM3X4
- Centering Disc: BDST40800

### RECOMMENDED ACCESSORIES

- Straight Fittings - Barb Style Connection: GVM3
- Magnetic field sensor Angled Cable 0.3 m - Connector M8: MFS103SKHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8: MFS2045KHC
- 2 Position Sensor Cable 0.3 m - Connector M8: MFSP2SKHC
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500
- Plug-in connector customisable Straight - Connector M8: SS-G-3
- Plug-in connector customisable Straight - Connector M12: S12-G-3
- Pressure Safety Valve: DSV1-8

---

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Order no. | Technical Data
--- | ---
MSF44-F001 | MSF44S-F001 | MSF44N-F002 | MSF44S-F002 | MSF44N-D2 | MSF44S-D2
Swivel angle [°] | 90-180 | 90-180 | 90-180 | 90-180 | 90-180 | 90-180
Torque [Nm] | 1.2 | 1.2 | 1.2 | 1.2 | 1 | 1
Repetition accuracy +/− [°] | 0.07 | 0.01 | 0.07 | 0.01 | 0.07 | 0.01
Air feed-through [Quantity] | 0 | 0 | 0 | 0 | 2 | 2
Axial bearing load [N] | 520 | 520 | 520 | 520 | 520 | 520
Radial bearing load [Nm] | 19 | 19 | 19 | 19 | 19 | 19
Operating pressure min. [bar] | 3 | 3 | 3 | 3 | 3 | 3
Operating pressure max. [bar] | 8 | 8 | 8 | 8 | 8 | 8
Operating temperature min. [°C] | 5 | 5 | 5 | 5 | 5 | 5
Operating temperature max. [°C] | 80 | 80 | 80 | 80 | 80 | 80
Air volume per cycle 90° [cm³] | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7
Air volume per cycle 180° [cm³] | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4
Weight [kg] | 0.41 | 0.42 | 0.41 | 0.42 | 0.45 | 0.46

*All data measured at 6 bar
Our products love the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

Find the best product for your specific use:

www.zimmer-group.com

**PRODUCT ADVANTAGES**

“The superior”

- **Up to 100% more performance than the benchmark**
  Superior end position damping lets you swivel more mass in the shortest amount of time, increasing your machine’s component output

- **Large centre bore**
  Reduce the interference contours in your application by placing your power supply line directly through the middle of the rotary flange

- **More than 100% higher radial bearing load than the benchmark**
  The generously scaled bearings stand for robustness and long service life and provide the highest process reliability for your application

**THE BEST PRODUCT FOR YOUR APPLICATION**

- **Our products love the challenge!**
  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
  Find the best product for your specific use:
  www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Two way ball bearing hollow shaft**
   - For feedthrough cables and hoses
   - High forces and moments capacity

2. **Up to 8 way integrated air feed-through**
   - For hoseless air transfer
   - Hose package does not have to be pivoted

3. **Adjustable end position**
   - +/- 3° adjustable end position

4. **Large, precise locating flange**
   - Simple tool connection

5. **Integrated and patented hydraulic shock absorbers**
   - Adjustable end position damping
   - Heating is prevented through installation in pneumatic pressure chamber

6. **Air flow control valve**
   - For speed regulation (included in the delivery)

7. **Force transfer**
   - Rack and pinion

8. **Drive**
   - Two double-acting pneumatic cylinders
   - High torque rating

---

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>6</td>
</tr>
<tr>
<td>Swivel angle</td>
<td>0° - 180°</td>
</tr>
<tr>
<td>Torque</td>
<td>1.5 Nm - 130 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.6 kg - 41.1 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- Powerstop end position damping
- Fluid feed-through
- Inductive sensor
- Magnetic field sensor
- Positionability - 2 positions
- Positionability - 3 positions
- Adjustable swivel angle
- IP 64
- 10 million maintenance-free cycles (max.)

Data, Drawings, 3-D Models, Operating Instructions  ➤  [www.zimmer-group.com](http://www.zimmer-group.com)  561
## How to Order Correctly

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF</th>
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<th>-C</th>
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<tbody>
<tr>
<td>Clean room class 5</td>
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<td>R</td>
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<tr>
<td>Flat swivel units</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Installation size 50</td>
<td></td>
<td>74</td>
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</tr>
<tr>
<td>Installation size 100</td>
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<td>100</td>
<td></td>
</tr>
<tr>
<td>Installation size 125</td>
<td></td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Installation size 155</td>
<td></td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Installation size 195</td>
<td></td>
<td>195</td>
<td></td>
</tr>
<tr>
<td>Swivel angle 0° - 180°, infinitely variable</td>
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<tr>
<td>Integrated hoseless pneumatic feed-through, 4-way</td>
<td>D4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 6-way</td>
<td>D6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 8-way</td>
<td>D8</td>
<td></td>
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</tr>
<tr>
<td>Rotation angle 90°</td>
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<td>Integrated hoseless pneumatic feed-through, 4-way</td>
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<td>-90D4</td>
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<td>Integrated hoseless pneumatic feed-through, 6-way</td>
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<td>-90D6</td>
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<td>Integrated hoseless pneumatic feed-through, 8-way</td>
<td></td>
<td>-90D8</td>
<td></td>
</tr>
<tr>
<td>Rotation angle 180°</td>
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<td>-180N</td>
<td></td>
</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 4-way</td>
<td></td>
<td>-180D4</td>
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<tr>
<td>Integrated hoseless pneumatic feed-through, 6-way</td>
<td></td>
<td>-180D6</td>
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</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 8-way</td>
<td></td>
<td>-180D8</td>
<td></td>
</tr>
</tbody>
</table>

**Version: ML (Size SF50 / SF74 / SF100)**
- At -90° and +90° position, mechanical and shock-absorbed fixed stop
- 0° position is not locked, as opposed to the M version
- For these units, the driven pistons move against dominant limit stop pistons and, like for the locked center position, undergo shock absorption while moving into end position
- Simplified activation for horizontal rotary movements

<table>
<thead>
<tr>
<th>Swivel angle -90° - 0° - +90°</th>
<th>ML</th>
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<tbody>
<tr>
<td>Integrated hoseless pneumatic feed-through, 4-way</td>
<td>MLD4</td>
</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 6-way</td>
<td>MLD6</td>
</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 8-way</td>
<td>MLD8</td>
</tr>
</tbody>
</table>

**Version: M (Size SF125 / SF155 / SF195)**
- All three positions for mechanical and shock-mounted fixed stop
- 0° center position using two stopper pistons with integrated shock absorbers
- A mechanical fixed stop is generated using ratchet bolts that are pushed through arrester pistons into the ring groove of the stopper piston

<table>
<thead>
<tr>
<th>Swivel angle -90° - 0° - +90°</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated hoseless pneumatic feed-through, 4-way</td>
<td>MD4</td>
</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 6-way</td>
<td>MD6</td>
</tr>
<tr>
<td>Integrated hoseless pneumatic feed-through, 8-way</td>
<td>MD8</td>
</tr>
</tbody>
</table>
VERSIGN: ML (SIZE SF50 / SF74 / SF100)

VERSIGN: M (SIZE SF125 / SF155 / SF195)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF50N-C

PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of inertia</th>
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<tr>
<td><img src="image" alt="Moment of Inertia Graph" /></td>
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</tbody>
</table>

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRVM5X4

RECOMMENDED ACCESSORIES

- 2 Position-Sensor Cable 0.3 m - Connector MB: MFSP2SKHC
- Magnetic field sensor Straight Cable 0.3 m - Connector MB: MFSP2SKHC
- Plug-in connector Straight Cable 5 m - Socket MB (female): KAG500
- Plug-in connector customizable Straight - Connector MB: S8-G-3
- Pressure Safety Valve: DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Attachment Kit: ANS0006
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector MB: NJ8-E2S
- Plug-in connector Angled Cable 5 m - Socket MB (female): KAW500
### Technical Data*

<table>
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<th>Order no.</th>
<th>SF50-90N-C</th>
<th>SF50-180N-C</th>
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<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>0-180</td>
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<td>Torque [Nm]</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
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<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>180</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.51</td>
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<tr>
<td>Passage bore Ø [mm]</td>
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<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
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<td>490</td>
<td>490</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
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<td>24</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>14</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Diagram:**

- Fixings for swivel unit
- Energy supply
- Shock absorber
- Fixing tool side
- Internal positive stop
- Fixing ANS
- Direction of rotation
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection 90°-180°
- Air connection 0°
- Alternate air connection (90°-180°)
- Alternate air connection (0°)

Hoseless energy supply (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF50D4-C

PRODUCT SPECIFICATIONS

- Moment of inertia

![Graph showing expected swivel time vs calculated moment of inertia](image)

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  DRVM8X4
- O-Ring
  COR0020100

RECOMMENDED ACCESSORIES

- 2 Position Sensor Cable 0.3 m - Connector M8
  MFSP2SKHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  MFS204SKHC
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500
- Plug-in connector customizable Straight - Connector M8
  S8-G-3
- Pressure Safety Valve
  DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Attachment Kit
  AN50008
- Inductive proximity switch - Cable 5 m
  NJ8-E2
- Inductive proximity switch - Connector M8
  NJ8-E2S
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
**Technical Data***

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF50-90D4-C</th>
<th>SF50-180D4-C</th>
<th>SF50D4-C</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [*]</td>
<td>90</td>
<td>180</td>
<td>0-180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [*]</td>
<td>3</td>
<td>3</td>
<td>180</td>
</tr>
<tr>
<td>Repetition accuracy +/- [*]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>490</td>
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<td>Air volume per cycle [cm³]</td>
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<td>Weight [kg]</td>
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*All data measured at 6 bar*

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<th><strong>SF50D4-C</strong></th>
<th><strong>Flat Swivel Units</strong></th>
<th><strong>pneumatic / Swivel- and Rotary Modules</strong></th>
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<td>2 Energy supply</td>
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<td>2 Energy supply</td>
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<td>3 Integrated air feed-through</td>
<td>3 Integrated air feed-through</td>
<td>3 Integrated air feed-through</td>
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<td>4 Shock absorber</td>
<td>4 Shock absorber</td>
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<td>5 Fixing tool side</td>
<td>5 Fixing tool side</td>
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<td>6 Internal positive stop</td>
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<td>7 Fixing ANS</td>
<td>7 Fixing ANS</td>
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<tr>
<td>8 Direction of rotation</td>
<td>8 Direction of rotation</td>
<td>8 Direction of rotation</td>
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<tr>
<td>10 Adapter</td>
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<td>11 Swivel unit</td>
<td>11 Swivel unit</td>
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<tr>
<td>12 Air connection 90°-180°</td>
<td>12 Air connection 90°-180°</td>
<td>12 Air connection 90°-180°</td>
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<tr>
<td>13 Air connection 0°</td>
<td>13 Air connection 0°</td>
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**Hoseless pneumatic feed-through (tool)**

**Hoseless pneumatic feed-through (machine)**

**Hoseless energy supply (machine)**

---

Data, Drawings, 3-D Models, Operating Instructions  
www.zimmer-group.com
FLAT SWIVEL UNITS
INSTALLATION SIZE SF50ML-C

PRODUCT SPECIFICATIONS

Moment of inertia

Shows the expected swivel time vs the calculated moment of inertia.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRVM3X4

Attachment Kit
ANS0066

RECOMMENDED ACCESSORIES

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector MB
MFS2045KHC

Plug-in connector Straight Cable 5m - Socket MB (female)
KAG500

Plug-in connector customizable Straight - Connector MB S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector MB
NJ8-E2S

Plug-in connector Angled Cable 5m - Socket MB (female)
KAV500
**Order no. SF50ML-C**

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<td>Radial bearing load [Nm]</td>
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</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
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<td>Operating temperature max. [°C]</td>
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<td>Air volume per cycle [cm³]</td>
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*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF50MLD4-C

PRODUCT SPECIFICATIONS

Moment of inertia

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRVM5X4

O-Ring
COR0020100

Attachment Kit
ANS0067

RECOMMENDED ACCESSORY

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAN500
**Technical Data**

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*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF74N-C

PRODUCT SPECIFICATIONS

Moment of inertia

Show the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

RECOMMENDED ACCESSORIES

2 Position Sensor Cable 0.3 m - Connector MB
MFSP2SKHC

Magnetic field sensor Straight Cable 0.3 m - Connector MB
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket MB (female)
KAG500

Plug-in connector Angled Cable 5 m - Socket MB (female)
KAW500

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
AN50010

Inductive proximity switch - Cable 5 m
NJ6.5-E2-01

Inductive proximity switch - Connector MB
NJ6.5-E2S

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector MB
NJ8-E2S
### Technical Data*

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<td>3</td>
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<td>Passage bore Ø [mm]</td>
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<td>12</td>
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<tr>
<td>Axial bearing load [N]</td>
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<td>1120</td>
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<td>Radial bearing load [Nm]</td>
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<td>88</td>
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<td>Operating pressure min. [bar]</td>
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*All data measured at 6 bar

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#### Hoseless energy supply (machine)

- Fixings for swivel unit
- Energy supply
- Shock absorber
- Fixing tool side
- Internal positive stop
- Fixing ANS
- Direction of rotation
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection 90°-180°
- Air connection 0°
- Alternate air connection (90°-180°)
- Alternate air connection (0°)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF74D4-C

PRODUCT SPECIFICATIONS

Moment of inertia

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

O-Ring
COR0020100

RECOMMENDED ACCESSORIES

2 Position-Sensor Cable 0,3 m - Connector MB
MFSP2SKHC

Magnetic field sensor Straight Cable 0,3 m - Connector MB
MFS204SKHC

Plug-in connector Straight Cable 5m - Socket MB (female)
KAG500

Plug-in connector Angled Cable 5m - Socket MB (female)
KAW500

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
ANS0012

Inductive proximity switch - Cable 5 m
NJ6.5-E2-01

Inductive proximity switch - Connector MB
NJ6.5-E2S

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector MB
NJ8-E2S

www.zimmer-group.com ▷ Data, Drawings, 3-D Models, Operating Instructions
<table>
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<tr>
<td><strong>Repetition accuracy +/- [°]</strong></td>
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<td><strong>Axial bearing load [N]</strong></td>
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<tr>
<td><strong>Operating pressure min. [bar]</strong></td>
<td>3</td>
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<td><strong>Operating pressure max. [bar]</strong></td>
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<tr>
<td><strong>Operating temperature max. [°C]</strong></td>
<td>80</td>
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<td><strong>Weight [kg]</strong></td>
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*All data measured at 6 bar

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![Diagram](image-url)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF74D6-C

PRODUCT SPECIFICATIONS

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<td>Shows the expected swivel time vs the calculated moment of inertia.</td>
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<tr>
<td>Data measured at 6 bar and horizontal mounting position.</td>
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</table>

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  - DRV1-8X6
- O-Ring
  - COR0020100

RECOMMENDED ACCESSORIES

- 2 Position-Sensor Cable 0.3 m - Connector M8
  - MFSP2SKHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  - MFS2045KHC
- Plug-in connector Straight Cable 5m - Socket M8 (female)
  - KAG500
- Plug-in connector Angled Cable 5m - Socket M8 (female)
  - KAW500
- Pressure Safety Valve
  - DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Attachment Kit
  - AN50012
- Inductive proximity switch - Cable 5 m
  - NJ6.5-E2-01
- Inductive proximity switch - Connector M8
  - NJ6.5-E2S
- Inductive proximity switch - Cable 5 m
  - NJ8-E2
- Inductive proximity switch - Connector M8
  - NJ8-E2S
### Technical Data*

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<td>Passage bore Ø [mm]</td>
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<td>Weight [kg]</td>
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*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF74ML-C

PRODUCT SPECIFICATIONS

Moment of Inertia

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</table>

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

Attachment Kit
ANS0068

RECOMMENDED ACCESSORIES

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ6.5-E2-01

Inductive proximity switch - Connector M8
NJ6.5-E2S

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500
### Technical Data

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<td>Repetition accuracy +/- [*]</td>
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<td>Passage bore ø [mm]</td>
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<tr>
<td>Operating pressure min. [bar]</td>
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*All data measured at 6 bar

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![Diagram](image-url)

1. Fixings for swivel unit
2. Energy supply
3. Shock absorber
4. Fixing tool side
5. Fixing ANS
6. Direction of rotation
7. Cover shock absorber
8. Integrated slot for magnetic field sensor
9. Adapter
10. Swivel unit
11. Air connection swivel to +90°
12. Air connection swivel to -90°
13. Air connection swivel to mid position

Hoseless energy supply (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF74MLD4-C

PRODUCT SPECIFICATIONS

**Moment of Inertia**

![Graph showing moment of inertia vs. swivel time]

- **Data measured at 6 bar and horizontal mounting position**

INCLUDED IN DELIVERY

- **Flow Control Valves - with Swivel joint**
  - DRV1-8X6
- **O-Ring**
  - COR0020100
- **Attachment Kit**
  - ANS0069

RECOMMENDED ACCESSORIES

- **Magnetic field sensor Straight Cable 5 m**
  - MFS204KH
- **Magnetic field sensor Straight Cable 0.3 m - Connector M8**
  - MFS204SKHC
- **Plug-in connector Straight Cable 5 m - Socket M8 (female)**
  - KAG500
- **Plug-in connector customizable Straight - Connector M8**
  - S8-G-3
- **Pressure Safety Valve**
  - DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- **Inductive proximity switch - Cable 5 m**
  - NJ6.5-E2-01
- **Inductive proximity switch - Connector M8**
  - NJ6.5-E2S
- **Inductive proximity switch - Cable 5 m**
  - NJ8-E2
- **Inductive proximity switch - Connector M8**
  - NJ8-E2S
- **Plug-in connector Angled Cable 5 m - Socket M8 (female)**
  - KAW500
### Technical Data*

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<tr>
<td>Operating pressure max. [bar]</td>
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*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF74MLD6-C

PRODUCT SPECIFICATIONS

Moment of Inertia

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

O-Ring
COR0020100

Attachment Kit
ANS0070

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS2045KHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ6.5-E2-01

Inductive proximity switch - Connector M8
NJ6.5-E2S

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500
### Technical Data

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*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF100N-C

PRODUCT SPECIFICATIONS

Moment of inertia

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector MB
MFS2045KHC

Plug-in connector Straight Cable 5m - Socket MB (female)
KAG500

Plug-in connector customizable Straight - Connector MB
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
ANS0015

Inductive proximity switch
- Cable 5 m
NJ8-E2

Inductive proximity switch
- Connector MB
NJ8-E2S

Plug-in connector Angled Cable 5m - Socket MB (female)
KAW500
**Technical Data**

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*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF100D4-C

PRODUCT SPECIFICATIONS

Moment of inertia

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Shows the expected swivel time vs the calculated moment of inertia. Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

O-Ring
COR0030100

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector MB
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket MB (female)
KAG500

Plug-in connector customizable Straight Connector MB S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
ANS0017

Inductive proximity switch
-Cable 5 m
NJ8-E2

Inductive proximity switch
- Connector MB
NJ8-E2S

Plug-in connector Angled Cable 5 m - Socket MB (female)
KAW500
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<td>155</td>
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<td>Operating pressure min. [bar]</td>
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<td>Air volume per cycle [cm³]</td>
<td>103</td>
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<td>4</td>
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*All data measured at 6 bar*

**Technical Data**

- Fixings for swivel unit
- Energy supply
- Integrated air feed-through
- Shock absorber
- Fixing tool side
- Internal positive stop
- Fixing ANS
- Direction of rotation
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection 90°-180°
- Air connection 0°
- Alternate air connection (90°-180°)
- Alternate air connection (0°)

**Hoseless pneumatic feed-through (tool)**

**Hoseless pneumatic feed-through (machine)**

**Hoseless energy supply (machine)**

---

[www.zimmer-group.com](http://www.zimmer-group.com)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF100D6-C

PRODUCT SPECIFICATIONS

**Moment of Inertia**

![Graph showing moment of inertia vs swivel time](image)

- Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint: DRV1-8X6
- O-Ring: COR0030100

RECOMMENDED ACCESSORIES

- Magnetic field sensor - Straight Cable 5 m: MFS204KHC
- Magnetic field sensor - Straight Cable 0.3 m - Connector MB: MFS204SKHC
- Plug-in connector Straight Cable 5 m - Socket MB (female): KAG500
- Plug-in connector customizable Straight - Connector MB S8-G-3
- Pressure Safety Valve: DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Attachment Kit: ANS0017
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector MB: NJ8-E2S
- Plug-in connector Angled Cable 5 m - Socket MB (female): KAW500
### Technical Data*

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*All data measured at 6 bar

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**Order no.**
- SF100-90D6-C
- SF100-180D6-C
- SF100D6-C

1. Fixings for swivel unit
2. Energy supply
3. Integrated air feed-through
4. Shock absorber
5. Fixing tool side
6. Internal positive stop
7. Fixing ANS
8. Direction of rotation
9. Integrated slot for magnetic field sensor
10. Adapter
11. Swivel unit
12. Air connection 90°-180°
13. Air connection 0°
14. Alternate air connection (90°-180°)
15. Alternate air connection (0°)

---

**Hoseless pneumatic feed-through**
- Tool
- Machine

---

**Hoseless energy supply**
- Machine
FLAT SWIVEL UNITS
INSTALLATION SIZE SF100ML-C

PRODUCT SPECIFICATIONS

Moment of inertia

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<th>kg m²</th>
<th>0</th>
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Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

Attachment Kit
ANS0071

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector MB
MFS2045KHC

Plug-in connector Straight Cable 5m - Socket MB (female)
KAG500

Plug-in connector customizable Straight - Connector MB S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch
- Cable 5 m
NJ8-E2

Inductive proximity switch - Connector MB
NJ8-E2S

Plug-in connector Angled Cable 5m - Socket MB (female)
KAIN500
**Technical Data**

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<td>Radial bearing load [Nm]</td>
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<td>Weight [kg]</td>
<td>5.4</td>
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*All data measured at 6 bar*

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1. Fixings for swivel unit
2. Energy supply
3. Shock absorber
4. Fixing tool side
5. Fixing ANS
6. Direction of rotation
7. Cover shock absorber
8. Integrated slot for magnetic field sensor
9. Adapter
10. Swivel unit
11. Air connection swivel to +90°
12. Air connection swivel to -90°
13. Air connection swivel to mid position

Hoseless energy supply (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF100MLD4-C

PRODUCT SPECIFICATIONS

Moment of inertia

[Graph showing the relationship between moment of inertia and swivel time.]

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

O-Ring
COR0030100

Attachment Kit
ANS0072

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector
Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable
Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch
-Cable 5 m
NJ8-E2

Inductive proximity switch
-Connector M8
NJ8-E2S

Plug-in connector Angled
Cable 5m - Socket M8 (female)
KAI500
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*All data measured at 6 bar
FLAT SWIVEL UNITS
INSTALLATION SIZE SF100MLD6-C

PRODUCT SPECIFICATIONS

Moment of inertia

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

O-Ring
COR0030100

Attachment Kit
ANS0073

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector MB
MFS204SKHC

Plug-in connector Straight Cable 5m - Socket MB (female)
KAG500

Plug-in connector customizable Straight - Connector MB
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector MB
NJ8-E2S

Plug-in connector Angled Cable 5m - Socket MB (female)
KAW500

www.zimmer-group.com  ▶  Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*  
Order no. SF100MLD6-C

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<td>Repetition accuracy +/- [°]</td>
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<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>304</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>5.8</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Diagram:**

- Fixings for swivel unit
- Energy supply
- Integrated air feed-through
- Shock absorber
- Fixing tool side
- Fixing ANS
- Direction of rotation
- Cover shock absorber
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection swivel to +90°
- Air connection swivel to -90°
- Air connection swivel to mid position

---

**Figure:**

- Hoseless pneumatic feed-through (tool)
- Hoseless energy supply (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF125N-C

PRODUCT SPECIFICATIONS

Moment of inertia

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

RECOMMENDED ACCESSORIES

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
ANS0035

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF125-90N-C</th>
<th>SF125-180N-C</th>
<th>SF125N-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>0-180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>180</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>3400</td>
<td>3400</td>
<td>3400</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>391</td>
<td>391</td>
<td>391</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>220</td>
<td>440</td>
<td>440</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>8.8</td>
<td>8.8</td>
<td>9.8</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram of the technical data](image)

- Fixings for swivel unit
- Energy supply
- Shock absorber
- Fixing tool side
- Internal positive stop
- Fixing ANS
- Fix stop and switch cam 90°
- Fix stop and switch cam 180°
- Direction of rotation
- Fix stop with integrated shock absorber
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection 90°-180°
- Air connection 0°
- Alternate air connection (90°-180°)
- Alternate air connection (0°)

---

**Hoseless energy supply (machine)**

---

Data, Drawings, 3-D Models, Operating Instructions  ◄  www.zimmer-group.com
**FLAT SWIVEL UNITS**

**INSTALLATION SIZE SF125D4-C**

---

**PRODUCT SPECIFICATIONS**

**Moment of Inertia**

![Graph showing expected swivel time vs calculated moment of inertia](image)

- SF125-90°
- SF125-180°

Data measured at 6 bar and horizontal mounting position.

---

**INCLUDED IN DELIVERY**

- Flow Control Valves - with Swivel joint
  - DRV1-4X8
- O-Ring
  - COR0040150

---

**RECOMMENDED ACCESSORIES**

- Magnetic field sensor Straight Cable 5 m
  - MFS204KHC
- Magnetic field sensor Straight Cable 0,3 m - Connector M8
  - MFS204SKKC
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  - KAG500
- Plug-in connector customizable Straight - Connector M8
  - S8-G-3
- Pressure Safety Valve
  - DSV1-8

---

**RECOMMENDED ACCESSORY ATTACHMENT KIT**

- Attachment Kit
  - ANS0036
- Inductive proximity switch - Cable 5 m
  - NJ8-E2
- Inductive proximity switch - Cable 5 m
  - NJ12-E2
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  - KAW500

---

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
FLAT SWIVEL UNITS
INSTALLATION SIZE SF125D8-C

PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of Inertia</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Graph" /></td>
</tr>
</tbody>
</table>

Shows the expected swivel time vs. the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint: DRV1-4X8
- O-Ring: COR0040150

RECOMMENDED ACCESSORIES

- Magnetic field sensor Straight Cable 5 m: MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8: MFS204SKHC
- Plug-in connector Straight Cable 5 m - Socket M8 (female): KAG500
- Plug-in connector customizable Straight - Connector M8 S8-G-3
- Pressure Safety Valve: DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Attachment Kit: ANS0037
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Cable 5 m: NJ12-E2
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500

www.zimmer-group.com  ▶  Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF125-90D8-C</th>
<th>SF125-180D8-C</th>
<th>SF125D8-C</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>0-180</td>
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<tr>
<td>Torque [Nm]</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>3910</td>
<td>3910</td>
<td>3910</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>220</td>
<td>440</td>
<td>440</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>10.5</td>
<td>10.5</td>
<td>11.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

### Hoseless energy supply (machine)

1. Fixings for swivel unit
2. Energy supply
3. Integrated air feed-through
4. Shock absorber
5. Fixing tool side
6. Internal positive stop
7. Fixing ANS
8. Fix stop and switch cam 90°
9. Fix stop and switch cam 180°
10. Direction of rotation
11. Fix stop with integrated shock absorber
12. Integrated slot for magnetic field sensor
13. Adapter
14. Swivel unit
15. Air connection 90°-180°
16. Air connection 0°
17. Alternate air connection (90°-180°)
18. Alternate air connection (0°)

**Installation size SF125D8-C / Flat Swivel Units / pneumatic / Swivel- and Rotary Modules**

Data, Drawings, 3-D Models, Operating Instructions ➔ www.zimmer-group.com
FLAT SWIVEL UNITS
INSTALLATION SIZE

PRODUCT SPECIFICATIONS

[Image of SF125M-C]

Moment of inertia

<table>
<thead>
<tr>
<th>Moment of Inertia [kg m²]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.6 1.2 1.8 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0</td>
</tr>
</tbody>
</table>

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

Attachment Kit
ANS0074

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight Connector M8 S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch
- Cable 5 m
NJ8-E2

Inductive proximity switch
- Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAIN500

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
## Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF125M-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>-90 / 0 / +90</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>38</td>
</tr>
<tr>
<td>Swivel angle regulatable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>26</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>3400</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>391</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>540</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>11.9</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Fixings for swivel unit
1. Fixings for swivel unit
2. Energy supply
3. Adjusting screw
4. Shock absorber
5. Fixing tool side
6. Fixing ANS
7. Direction of rotation
8. Switch cam
9. Integrated slot for magnetic field sensor
10. Adapter
11. Swivel unit
12. Air connection swivel to +90°
13. Air connection swivel to -90°
14. Alternate air connection swivel to +90°
15. Alternate air connection swivel to -90°
16. Air connection swivel to mid position
17. Alternate air connection swivel to mid position

### Hoseless energy supply (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF125MD4-C

PRODUCT SPECIFICATIONS

Moment of Inertia

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRYV1-4X8

O-Ring
COR0040150

Attachment Kit
ANS0075

RECOMMENDED ACCESSORIES

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector MB
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket MB (female)
KAG500

Plug-in connector customizable Straight - Connector MB S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5 m - Socket MB (female)
KAIN500
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF125MD4-C</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [*]</td>
<td>-90 / 0 / +90</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>34</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [*]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [*]</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>26</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>3400</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>391</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>540</td>
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<tr>
<td>Weight [kg]</td>
<td>12.9</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

- Fixings for swivel unit
- Energy supply
- Integrated air feed-through
- Adjusting screw
- Shock absorber
- Fixing tool side
- Fixing ANS
- Direction of rotation
- Switch cam
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection swivel to +90°
- Air connection swivel to -90°
- Alternate air connection swivel to +90°
- Alternate air connection swivel to -90°
- Air connection swivel to mid position
- Alternate air connection swivel to mid position

---

**Installation size SF125MD4-C / Flat Swivel Units / pneumatic / Swivel- and Rotary Modules**

Data, Drawings, 3-D Models, Operating Instructions ➤ www.zimmer-group.com
FLAT SWIVEL UNITS
INSTALLATION SIZE SF125MD8-C

PRODUCT SPECIFICATIONS

| Moment of Inertia |
|-------------------|-----------------|
| [kg m²]           |                 |
| 20                |                 |
| 16                |                 |
| 12                |                 |
| 8                 |                 |
| 4                 |                 |
| 0                 |                 |

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  DRV1-4X8
- O-Ring
  COR0040150
- Attachment Kit
  ANS0076

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  Straight Cable 5 m
  MFS204KHC
- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS2045KHC
- Plug-in connector
  Straight Cable 5 m - Socket M8 (female)
  KAG500
- Plug-in connector
  customizable Straight - Connector M8
  S8-G-3
- Pressure Safety Valve
  DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Inductive proximity switch
  - Cable 5 m
  NJ8-E2
- Inductive proximity switch
  - Cable 5 m
  NJ12-E2
- Plug-in connector
  Angled Cable 5 m - Socket M8 (female)
  KAV500
### Technical Data

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Order no.</td>
<td>SF125MD8-C</td>
</tr>
<tr>
<td>Swivel angle [°]</td>
<td>-90 / 0 / +90</td>
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<tr>
<td>Torque [Nm]</td>
<td>32</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>26</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>3400</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>391</td>
</tr>
<tr>
<td>Operating pressure min, [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max, [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min, [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max, [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>540</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>12.9</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF155N-C

► PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of Inertia</th>
</tr>
</thead>
<tbody>
<tr>
<td>kg·m²</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>1.4</td>
</tr>
<tr>
<td>2.1</td>
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</tbody>
</table>

Shows the expected swivel time vs the calculated moment of inertia. Data measured at 6 bar and horizontal mounting position.

► INCLUDED IN DELIVERY

Flow Control Valves, with Swivel joint: DRV1-4X8

► RECOMMENDED ACCESSORIES

- Magnetic field sensor, Straight Cable 5 m: MFS204KHC
- Magnetic field sensor, Straight Cable 0.3 m, Connector MB: MFS204SKHC
- Plug-in connector, Straight Cable 5 m, Socket MB (female): KAG500
- Plug-in connector, customizable Straight Cable, Connector MB: S8-G-3
- Pressure Safety Valve: DSV1-8

► RECOMMENDED ACCESSORY ATTACHMENT KIT

- Attachment Kit: AN50038
- Inductive proximity switch, Cable 5 m: NJ8-E2
- Inductive proximity switch, Cable 5 m: NJ12-E2
- Plug-in connector, Angled Cable 5 m, Socket MB (female): KAW500
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>SF155-90N-C</th>
<th>SF155-180N-C</th>
<th>SF155N-C</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>0-180</td>
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<tr>
<td>Torque [Nm]</td>
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<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>180</td>
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<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
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<tr>
<td>Passage bore Φ [mm]</td>
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<td>40</td>
<td>40</td>
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<tr>
<td>Axial bearing load [N]</td>
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<td>5900</td>
<td>5900</td>
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<td>Radial bearing load [Nm]</td>
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<td>761</td>
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<td>Operating pressure min. [bar]</td>
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<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>350</td>
<td>700</td>
<td>700</td>
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<tr>
<td>Weight [kg]</td>
<td>15</td>
<td>15</td>
<td>16.5</td>
</tr>
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</table>

*All data measured at 6 bar

---

**Order no.**

- SF155-90N-C
- SF155-180N-C
- SF155N-C

---

**Fixings for swivel unit**
- 1
- 2
- 4
- 6
- 7
- 9
- 11
- 13
- 15
- 18
- 20
- 22
- 24

**Energy supply**
- 3
- 19

**Fixing tool side**
- 5
- 17

**Internal positive stop**
- 8

**Fixing ANS**
- 10

**Fix stop and switch cam °**
- 14

**Direction of rotation**
- 16

**Fix stop with integrated shock absorber**
- 18

**Integrated slot for magnetic field sensor**
- 21

**Adapter**
- 22

**Swivel unit**
- 23

**Air connection 90°-180°**
- 24

**Air connection 0°**
- 25

**Alternate air connection (90°-180°)**
- 26

**Alternate air connection (0°)**
- 27

---

**Hoseless energy supply (machine)**

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**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF155D4-C

PRODUCT SPECIFICATIONS

- **Moment of inertia**
  - Shows the expected swivel time vs the calculated moment of inertia
  - Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

- **Flow Control Valves - with Swivel joint**
  - DRV1-4X8
- **O-Ring**
  - COR0040150

RECOMMENDED ACCESSORIES

- **Magnetic field sensor**
  - Straight Cable 5 m
  - MFS204KHC
- **Magnetic field sensor**
  - Straight Cable 0.3 m - Connector M8
  - MFS204SKHC
- **Plug-in connector**
  - Straight Cable 5 m - Socket M8 (female)
  - KAG500
- **Plug-in connector**
  - Customizable Straight - Connector M8
  - S8-G-3
- **Pressure Safety Valve**
  - DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- **Attachment Kit**
  - ANS0039
- **Inductive proximity switch**
  - Cable 5 m
  - NJ8-E2
- **Inductive proximity switch**
  - Cable 5 m
  - NJ12-E2
- **Plug-in connector**
  - Angled Cable 5 m - Socket M8 (female)
  - KAW500

Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF155-90D4-C</th>
<th>SF155-180D4-C</th>
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<td>Swivel angle [*]</td>
<td>90</td>
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<td>0-180</td>
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<tr>
<td>Torque [Nm]</td>
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<td>58</td>
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<tr>
<td>Swivel angle regulable +/- [*]</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Repetition accuracy +/- [*]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>5900</td>
<td>5900</td>
<td>5900</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>761</td>
<td>761</td>
<td>761</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
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</tr>
<tr>
<td>Operating temperature max. [°C]</td>
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<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
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<td>700</td>
<td>700</td>
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<tr>
<td>Weight [kg]</td>
<td>16</td>
<td>16</td>
<td>17.5</td>
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</table>

*All data measured at 6 bar

---

**Technical Data**

1. Fixings for swivel unit
2. Energy supply
3. Integrated air feed-through
4. Shock absorber
5. Fixing tool side
6. Internal positive stop
7. Fixing ANS
8. Fix stop and switch cam 90°
9. Fix stop and switch cam 180°
10. Direction of rotation
11. Fix stop with integrated shock absorber
12. Integrated slot for magnetic field sensor
13. Adapter
14. Swivel unit
15. Air connection 90°-180°
16. Air connection 0°
17. Alternate air connection (90°-180°)
18. Alternate air connection (0°)

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF155D8-C

PRODUCT SPECIFICATIONS

Moment of Inertia

![Graph showing the expected swivel time vs the calculated moment of inertia.]

Data measured at 6 bar and horizontal mounting position

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-14X8

O-Ring
COR0040150

RECOMMENDED ACCESSORIES

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector MB
MFS2045KHC

Plug-in connector Straight Cable 5 m - Socket MB (female)
KAG500

Plug-in connector customizable Straight - Connector MB S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
ANS0040

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5 m - Socket MB (female)
KAW500
### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
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<th>SF155-180D8-C</th>
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</thead>
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<td>0-180</td>
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<td>54</td>
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<tr>
<td>Swivel angle regulable +/- [°]</td>
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<tr>
<td>Repetition accuracy +/- [°]</td>
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<td>0.01</td>
<td>0.01</td>
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<tr>
<td>Passage bore Ø [mm]</td>
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<td>40</td>
<td>40</td>
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<tr>
<td>Axial bearing load [N]</td>
<td>5900</td>
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<tr>
<td>Radial bearing load [Nm]</td>
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<td>761</td>
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<td>Operating pressure min. [bar]</td>
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<td>3</td>
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<tr>
<td>Operating pressure max. [bar]</td>
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<tr>
<td>Operating temperature min. [°C]</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<td>80</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
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<td>700</td>
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<tr>
<td>Weight [kg]</td>
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*All data measured at 6 bar

---

**Order no.**

- SF155-90D8-C
- SF155-180D8-C
- SF155D8-C

---

**Fixings for swivel unit**

- Swivel unit
- Energy supply
- Integrated air feed-through
- Shock absorber
- Fixing tool side
- Internal positive stop
- Fixing ANS
- Fix stop and switch cam 90°
- Fix stop and switch cam 180°
- Direction of rotation
- Fix stop with integrated shock absorber
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection 90°-180°
- Air connection 0°
- Alternate air connection (90°-180°)
- Alternate air connection (0°)

---

**Installation size SF155D8-C / Flat Swivel Units / pneumatic / Swivel- and Rotary Modules**

- Data, Drawings, 3-D Models, Operating Instructions

[www.zimmer-group.com](http://www.zimmer-group.com)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF155M-C

► PRODUCT SPECIFICATIONS

Moments of Inertia

<table>
<thead>
<tr>
<th>[kg m²]</th>
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<th>2.1</th>
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<tr>
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</tbody>
</table>

Shows the expected swivel time vs. the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

► INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

Attachment Kit
ANS0077

► RECOMMENDED ACCESSORIES

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

► RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAI500
<table>
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<th>Order no.</th>
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</thead>
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<tr>
<td>Swivel angle [°]</td>
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<td>Torque [Nm]</td>
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<tr>
<td>Swivel angle regulable +/- [°]</td>
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<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
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<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>5900</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>761</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
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<tr>
<td>Weight [kg]</td>
<td>19.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

- Fixings for swivel unit
- Energy supply
- Adjusting screw
- Shock absorber
- Fixing tool side
- Fixing ANS
- Direction of rotation
- Switch cam
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection swivel to +90°
- Air connection swivel to -90°
- Alternate air connection swivel to +90°
- Alternate air connection swivel to -90°
- Air connection swivel to mid position
- Alternate air connection swivel to mid position

---

**Hoseless energy supply (machine)**
FLAT SWIVEL UNITS
INSTALLATION SIZE SF155MD4-C

PRODUCT SPECIFICATIONS

- **Moment of inertia**

  Shows the expected swivel time vs. the calculated moment of inertia.

  Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  - DRV1-4X8

- O-Ring
  - COR0040150

- Attachment Kit
  - ANS0078

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Straight Cable 5 m
  - MFS204KHC

- Magnetic field sensor
  - Straight Cable 0.3 m - Connector M8
  - MFS204SKHC

- Plug-in connector
  - Straight Cable 5 m - Socket M8 (female)
  - KAG500

- Plug-in connector
  - Customizable Straight - Connector M8
  - S8-G-3

- Pressure Safety Valve
  - DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Inductive proximity switch
  - Cable 5 m
  - NJ8-E2

- Inductive proximity switch
  - Cable 5 m
  - NJ12-E2

- Plug-in connector
  - Angled Cable 5 m - Socket M8 (female)
  - KAW500
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF155MD4-C</th>
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<tr>
<td>Torque [Nm]</td>
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<tr>
<td>Swivel angle regulable +/- [°]</td>
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</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>5900</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>761</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
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<tr>
<td>Weight [kg]</td>
<td>20.3</td>
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</tbody>
</table>

*All data measured at 6 bar*

![Diagram of the SF155MD4-C swivel unit with technical specifications and parts labeled.

1. Fixings for swivel unit
2. Energy supply
3. Integrated air feed-through
4. Adjusting screw
5. Shock absorber
6. Fixing tool side
7. Fixing ANS
8. Direction of rotation
9. Switch cam
10. Integrated slot for magnetic field sensor
11. Adapter
12. Swivel unit
13. Air connection swivel to +90°
14. Air connection swivel to -90°
15. Alternate air connection swivel to +90°
16. Alternate air connection swivel to -90°
17. Air connection swivel to mid position
18. Alternate air connection swivel to mid position

Types of hoseless energy supply:
- Hoseless pneumatic feed-through (tool)
- Hoseless pneumatic feed-through (machine)
- Hoseless energy supply (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF155MD8-C

PRODUCT SPECIFICATIONS

Moment of Inertia

Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

O-Ring
COR0040150

Attachment Kit
ANS0079

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAIN500

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tr>
<td>Torque [Nm]</td>
<td>54</td>
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<tr>
<td>Swivel angle regulable +/- [°]</td>
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</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
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</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>5900</td>
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<tr>
<td>Radial bearing load [Nm]</td>
<td>761</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
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<tr>
<td>Operating temperature min. [°C]</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<tr>
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<tr>
<td>Weight [kg]</td>
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</table>

*All data measured at 6 bar

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#### Fixings for swivel unit

1. Energy supply
2. Integrated air feed-through
3. Adjusting screw
4. Shock absorber
5. Fixing tool side
6. Fixing ANS
7. Direction of rotation
8. Switch cam
9. Integrated slot for magnetic field sensor
10. Adapter
11. Swivel unit
12. Air connection swivel to +90°
13. Air connection swivel to -90°
14. Alternate air connection swivel to +90°
15. Alternate air connection swivel to -90°
16. Air connection swivel to mid position
17. Alternate air connection swivel to mid position

#### Hoseless pneumatic feed-through

- (tool)
- (machine)

#### Hoseless energy supply

- (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF195N-C

PRODUCT SPECIFICATIONS

Moment of Inertia

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
ANS0041

Inductive proximity switch
Cable 5 m
NJ8-E2

Inductive proximity switch
Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500
### Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>SF195-90N-C</th>
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<th>SF195N-C</th>
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<td>Torque [Nm]</td>
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<tr>
<td>Swivel angle regulable +/- [*]</td>
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<tr>
<td>Repetition accuracy +/- [*]</td>
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<td>0.01</td>
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<tr>
<td>Passage bore Ø [mm]</td>
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<td>5</td>
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<tr>
<td>Operating temperature max. [°C]</td>
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<td>Weight [kg]</td>
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*All data measured at 6 bar

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<table>
<thead>
<tr>
<th>Fixings for swivel unit</th>
<th>Energy supply</th>
<th>Shock absorber</th>
<th>Fixing tool side</th>
<th>Internal positive stop</th>
<th>Fixing ANS</th>
<th>Fix stop and switch cam 90°</th>
<th>Fix stop and switch cam 180°</th>
<th>Direction of rotation</th>
<th>Fix stop with integrated shock absorber</th>
<th>Integrated slot for magnetic field sensor</th>
<th>Adapter</th>
<th>Swivel unit</th>
<th>Air connection 90°-180°</th>
<th>Air connection 0°</th>
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Hoseless energy supply (machine)
FLAT SWIVEL UNITS
INSTALLATION SIZE SF195D4-C

► PRODUCT SPECIFICATIONS

<table>
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<tr>
<th>Moment of Inertia</th>
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<tbody>
<tr>
<td>(kg m²)</td>
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<td>900</td>
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Shows the expected swivel time vs the calculated moment of inertia.

Data measured at 6 bar and horizontal mounting position.

► INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

O-Ring
COR0050100

► RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

► RECOMMENDED ACCESSORY ATTACHMENT KIT

Attachment Kit
ANS0042

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500
### Order no.

<table>
<thead>
<tr>
<th></th>
<th>SF195-90D4-C</th>
<th>SF195-180D4-C</th>
<th>SF195D4-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>0-180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>125</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>180</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>7000</td>
<td>7000</td>
<td>7000</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>1253</td>
<td>1253</td>
<td>1253</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>740</td>
<td>1480</td>
<td>1480</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>29</td>
<td>29</td>
<td>31</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

### Technical Data*

- **Fixings for swivel unit**
- **Energy supply**
- **Shock absorber**
- **Fixing tool side**
- **Internal positive stop**
- **Fixing ANS**
- **Fix stop and switch cam 90°**
- **Fix stop and switch cam 180°**
- **Direction of rotation**
- **Fix stop with integrated shock absorber**
- **Integrated slot for magnetic field sensor**
- **Adapter**
- **Swivel unit**
- **Air connection 90°-180°**
- **Air connection 0°**
- **Alternate air connection (90°-180°)**
- **Alternate air connection (0°)**

---

*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF195D8-C

► PRODUCT SPECIFICATIONS

### Moment of Inertia

Shows the expected swivel time vs the calculated moment of inertia.

- SF 195°45°
- SF 195°180°

Data measured at 6 bar and horizontal mounting position.

► INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel Joint
  - DRV1-4X8
- O-Ring
  - COR0050100

► RECOMMENDED ACCESSORIES

- Magnetic field sensor
  - Straight Cable 5 m
  - MFS204KHC
- Magnetic field sensor
  - Straight Cable 0.3 m - Connector M8
  - MFS204SKHC
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  - KAG500
- Plug-in connector customizable Straight Connector M8
  - S8-G-3
- Pressure Safety Valve
  - DSV1-8

► RECOMMENDED ACCESSORY ATTACHMENT KIT

- Attachment Kit
  - ANS0043
- Inductive proximity switch - Cable 5 m
  - NJ8-E2
- Inductive proximity switch - Cable 5 m
  - NJ12-E2
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  - KAW500

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF195-90D8-C</th>
<th>SF195-180D8-C</th>
<th>SF195D8-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>0-180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>120</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>180</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>7000</td>
<td>7000</td>
<td>7000</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>1253</td>
<td>1253</td>
<td>1253</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</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>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>740</td>
<td>1480</td>
<td>1480</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>31.5</td>
<td>31.5</td>
<td>33.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

- Fixings for swivel unit
- Energy supply
- Shock absorber
- Fixing tool side
- Internal positive stop
- Fixing ANS
- Fix stop and switch cam 90°
- Fix stop and switch cam 180°
- Direction of rotation
- Fix stop with integrated shock absorber
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection 90°-180°
- Air connection 0°
- Alternate air connection (90°-180°)
- Alternate air connection (0°)

---

**Hoseless pneumatic feed-through (tool)**

**Hoseless pneumatic feed-through (machine)**

---

**Hoseless energy supply (machine)**
FLAT SWIVEL UNITS
INSTALLATION SIZE SF195M-C

PRODUCT SPECIFICATIONS

Moments of inertia

[Graph showing expected swivel time vs calculated moment of inertia.]

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

Attachment Kit
ANS0080

RECOMMENDED ACCESSORIES

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight Connector M8
S8-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

Inductive proximity switch Cable 5 m
NJ8-E2

Inductive proximity switch Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAIN500
### Order no. SF195M-C

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>-90 / 0 / +90</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>130</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>7000</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>1253</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2035</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>37.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF195MD4-C

PRODUCT SPECIFICATIONS

- Moment of inertia

Data measured at 6 bar and horizontal mounting position.

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  DRV1-4X8

- O-Ring
  COR0050100

- Attachment Kit
  ANS0081

RECOMMENDED ACCESSORIES

- Magnetic field sensor Straight Cable 5 m
  MFS204KHC

- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  MFS204SKHC

- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500

- Plug-in connector customizable Straight Connector M8
  S8-G-3

- Pressure Safety Valve
  DSV1-8

RECOMMENDED ACCESSORY ATTACHMENT KIT

- Inductive proximity switch - Cable 5 m
  NJ8-E2

- Inductive proximity switch - Cable 5 m
  NJ12-E2

- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
### Technical Data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>-90 / 0 / +90</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>125</td>
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<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>7000</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>1253</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2035</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>41.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

---

![Diagram of swivel unit](image)

1. Fixings for swivel unit
2. Energy supply
3. Integrated air feed-through
4. Adjusting screw
5. Shock absorber
6. Fixing tool side
7. Fixing ANS
8. Direction of rotation
9. Switch cam
10. Integrated slot for magnetic field sensor
11. Adapter
12. Swivel unit
13. Air connection swivel to +90°
14. Air connection swivel to -90°
15. Alternate air connection swivel to +90°
16. Alternate air connection swivel to -90°
17. Air connection swivel to mid position
18. Alternate air connection swivel to mid position

---

*a Hoseless pneumatic feed-through (tool)*

*b Hoseless pneumatic feed-through (machine)*

*c Hoseless energy supply (machine)*

---

---

*Installation size SF195MD4-C / Flat Swivel Units / pneumatic / Swivel- and Rotary Modules*
FLAT SWIVEL UNITS
INSTALLATION SIZE SF195MD8-C

► PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of Inertia</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Graph showing expected swivel time vs calculated moment of inertia." /></td>
</tr>
</tbody>
</table>

Data measured at 6 bar and horizontal mounting position.

► INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint: DRV1-4X8
- O-Ring: COR0050100
- Attachment Kit: ANS0082

► RECOMMENDED ACCESSORIES

- Magnetic field sensor Straight Cable 5 m: MFS204KH
- Magnetic field sensor Straight Cable 0.3 m - Connector M8: MFS204SKHC
- Plug-in connector Straight Cable 5 m - Socket M8 (female): KAG500
- Plug-in connector customizable Straight Connector M8: S8-G-3
- Pressure Safety Valve: DSV1-8

► RECOMMENDED ACCESSORY ATTACHMENT KIT

- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Cable 5 m: NJ12-E2
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SF195MD8-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>-90 / 0 / +90</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>120</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>7000</td>
</tr>
<tr>
<td>Radial bearing load [Nmm]</td>
<td>1253</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2035</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>41.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

#### Fixings for swivel unit
- Fixings ANS
- Fixing tool side
- Fixing ANS

#### Energy supply
- Energy supply

#### Adjusting screw
- Adjusting screw

#### Shock absorber
- Shock absorber

#### Direction of rotation
- Direction of rotation

#### Switch cam
- Switch cam

#### Integrated slot for magnetic field sensor
- Integrated slot for magnetic field sensor

#### Adapter
- Adapter

#### Swivel unit
- Air connection swivel to +90°
- Air connection swivel to -90°
- Alternate air connection swivel to +90°
- Alternate air connection swivel to -90°
- Air connection swivel to mid position
- Alternate air connection swivel to mid position

#### Hoseless energy supply (machine)

---

Data, Drawings, 3-D Models, Operating Instructions ➤ [www.zimmer-group.com](http://www.zimmer-group.com)
FLAT SWIVEL UNITS
OVERVIEW OF SERIES
ELECTRICAL

Series DES
FLAT SWIVEL UNITS
SERIES DES

► PRODUCT ADVANTAGES

“The unique”

► Decide for yourself!
With the standard motor or motors from another manufacturer - You decide what harmonises the best with your system

► Integrated media transmission
The D1 media exchanger makes cable breaks and undefined interference contours through the power supply line a thing of the past

► Freely positionable
No matter whether your task involves rotating, lifting or cycling: The unit is universally usable and can be uniquely adjusted to your application

► THE BEST PRODUCT FOR YOUR APPLICATION

“OUR PRODUCTS LOVE THE CHALLENGE!”
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DES140</th>
<th>D1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed-through, 12x electrical, 1x pneumatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unpowered; installation provided by customer</td>
<td>-99</td>
<td></td>
</tr>
</tbody>
</table>

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
**BENEFITS IN DETAIL**

1. **Energy supply**
   - motor cable, female
   - encoder cable, male

2. **Drive**
   - AC servo motor

3. **Intake flange**
   - for connection to application-specific adapter plate (to be produced by the customer)
   - simple tool connection

4. **Central bore**
   - for cable feed-through

5. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning

6. **Robust, lightweight housing**
   - hard coated aluminium alloy

7. **Force transfer**
   - tooth belt/gear rack/worm gear

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>2</td>
</tr>
<tr>
<td>Swivel angle</td>
<td>70° or 110°</td>
</tr>
<tr>
<td>Torque</td>
<td>9 Nm - 50 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>4 kg - 15.9 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- **Electrical feed-through**
- **Fluid feed-through**
- **Integrated sensing**
- **Mechanical self limitation**
- **Freely selectable positionability**
- **Adjustable swivel angle**
- **IP 54**
- **5 million maintenance-free revolutions (max.)**
**FLAT SWIVEL UNITS**
**INSTALLATION SIZE DES140**

### PRODUCT SPECIFICATIONS

#### Rotation time diagram

- Indicates the static load on the bearing.

<table>
<thead>
<tr>
<th>[Nm]</th>
<th>Fa [N]</th>
<th>Mr [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.6</td>
<td>7000</td>
<td>400</td>
</tr>
<tr>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Forces and moments

- Forces and moments indicate the static load on the bearing.

### INCLUDED IN DELIVERY

- Commissioning CD
  - CD0006

### RECOMMENDED ACCESSORIES

- IndraWorks Drive Start Up CD
  - ZUBHCSS
- Drive controller Profinet
  - ZUBHCS
- Drive control unit SER-COS III, PROFINET IO, EtherCAT
  - ZUBHCSME
- Programming cable
  - ZUBHCSKAP01
- Power cable 5 m
  - ZUBHCSKAL05
- Power cable 10 m
  - ZUBHCSKAL10
- Power cable 25 m
  - ZUBHCSKAL25
- Encoder cable 5 m
  - ZUBHCSKAG05
- Encoder cable 10 m
  - ZUBHCSKAG10
- Encoder cable 25 m
  - ZUBHCSKAG25
Order no.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DES140</th>
<th>DES140-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive *</td>
<td>AC servo motor</td>
<td>Specific to the customer *</td>
</tr>
<tr>
<td>Rotation angle [°]</td>
<td>unlimited</td>
<td></td>
</tr>
<tr>
<td>Torque max. [Nm]</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Nominal torque [Nm]</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Nominal speed [rpm]</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Max. speed [rpm]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 30 rpm [s]</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 50 rpm [s]</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Jaw speed in positioning mode [rad/s²]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Positioning delay [rad/s²]</td>
<td>50</td>
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</tr>
<tr>
<td>Electrical energy transfer</td>
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<tr>
<td>Pneumatic energy transfer [Quantity]</td>
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<tr>
<td>Self limitation</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.1</td>
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</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP54</td>
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</tr>
<tr>
<td>Net input voltage</td>
<td>1x200-240 VAC 50HZ</td>
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</tr>
<tr>
<td>Continuous current [A]</td>
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<td></td>
</tr>
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<td>Peak current [A]</td>
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<td></td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.2</td>
<td>4</td>
</tr>
</tbody>
</table>

* Third-party motor corresponding to the motor identification number, select page 644
FLAT SWIVEL UNITS
INSTALLATION SIZE DES140D1

PRODUCT SPECIFICATIONS

Rotation time diagram

Forces and moments
Indicates the static load on the bearing.

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>7000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>400</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Commissioning CD

CD0006

RECOMMENDED ACCESSORIES

IndraWorks Drive Start Up CD
Indra:orNs Drive Start
ZUBHCSS

Drive controller Profibus
ZUBHCS

Drive control unit SER-COS III, PROFINET IO, EtherNet/IP, EtherCAT
ZUBHCSME

Round plug, straight - M23 plug
RSTVSM23G12S-B

Round plug, angular - M23 plug
RSTVSM23W12S-B

Round plug, straight - M23 socket
RSTVSM23G12B-B

Round plug, angular - M23 socket
RSTVSM23W12B-B

Programming cable
ZUBHCSKAP01

Power cable 5 m
ZUBHCSKAL05

Power cable 10 m
ZUBHCSKAL10
## Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DES140D1</th>
<th>DES140D1-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive *</td>
<td>AC servo motor</td>
<td>Specific to the customer *</td>
</tr>
<tr>
<td>Rotation angle [*]</td>
<td>unlimited</td>
<td></td>
</tr>
<tr>
<td>Torque max. [Nm]</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Nominal torque [Nm]</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Nominal speed [rpm]</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Max. speed [rpm]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 30 rpm [s]</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 50 rpm [s]</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Jaw speed in positioning mode [rad/s²]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Positioning delay [rad/s²]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Electrical energy transfer</td>
<td>12x2A / 12x120V DC</td>
<td>12x2A / 12x120V DC</td>
</tr>
<tr>
<td>Pneumatic energy transfer [Quantity]</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Self limitation</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Repetition accuracy +/- [*]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP54</td>
<td></td>
</tr>
<tr>
<td>Net input voltage</td>
<td>1 x 200-240 VAC 50Hz</td>
<td></td>
</tr>
<tr>
<td>Continuous current [A]</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Peak current [A]</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>7</td>
<td>6.8</td>
</tr>
</tbody>
</table>

* Third-party motor corresponding to the motor identification number, select page 644

---

[Diagram with numbered parts and corresponding descriptions]
FLAT SWIVEL UNITS
INSTALLATION SIZE DES190

PRODUCT SPECIFICATIONS

Rotation time diagram

Forces and moments
Indicates the static load on the bearing.

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>525</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

Commissioning CD
CD0008

RECOMMENDED ACCESSORIES

IndraWorks Drive Start Up CD
ZUBHCSS

Drive controller Profinet
ZUBHCS

Drive control unit SER-COS III, PROFINET IO, EtherCAT
ZUBHCSME

Programming cable
ZUBHCSKAP01

Power cable 5 m
ZUBHCSKAL05

Power cable 10 m
ZUBHCSKAL10

Power cable 25 m
ZUBHCSKAL25

Encoder cable 5 m
ZUBHCSKAG05

Encoder cable 10 m
ZUBHCSKAG10

Encoder cable 25 m
ZUBHCSKAG25

Swivel time in vs the Torque for 360° included acceleration and deceleration

www.zimmer-group.com
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DES190</th>
<th>DES190-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>AC servo motor</td>
<td>Specific to the customer *</td>
</tr>
<tr>
<td>Rotation angle [°]</td>
<td>unlimited</td>
<td></td>
</tr>
<tr>
<td>Torque max. [Nm]</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Nominal torque [Nm]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Nominal speed [rpm]</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Max. speed [rpm]</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 30 rpm [s]</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 50 rpm [s]</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Jaw speed in positioning mode [rad/s°]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Positioning delay [rad/s°]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Electrical energy transfer</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Pneumatic energy transfer [Quantity]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self limitation</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IPS4</td>
<td></td>
</tr>
<tr>
<td>Net input voltage</td>
<td>1x200-240 VAC 50HZ</td>
<td></td>
</tr>
<tr>
<td>Continuous current [A]</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Peak current [A]</td>
<td>7.4</td>
<td></td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>11.2</td>
<td>10.8</td>
</tr>
</tbody>
</table>

*Third-party motor corresponding to the motor identification number, select page 644
FLAT SWIVEL UNITS
INSTALLATION SIZE DES190D1

► PRODUCT SPECIFICATIONS

Rotation time diagram

Forces and moments
Indicates the static load on the bearing.

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>525</td>
</tr>
</tbody>
</table>

► INCLUDED IN DELIVERY

Commissioning CD
CD0008

► RECOMMENDED ACCESSORIES

IndraWorks Drive Start Up CD
ZUBHCSS

Drive controller Profibus
ZUBHCS

Drive control unit SER-COS III, PROFINET IO, EtherCAT, EtherCAT
ZUBHCSEM

Round plug, straight - M23 plug
RSTVSM23G12S-B

Round plug, angular - M23 plug
RSTVSM23W12S-B

Programming cable
ZUBHCSDAP01

Power cable 5 m
ZUBHCSDAL05

Power cable 10 m
ZUBHCSDAL10

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DES190D1</th>
<th>DES190D1-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive *</td>
<td>AC servo motor</td>
<td>Specific to the customer *</td>
</tr>
<tr>
<td>Rotation angle [*]</td>
<td>unlimited</td>
<td></td>
</tr>
<tr>
<td>Torque max. [Nm]</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Nominal torque [Nm]</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Nominal speed [rpm]</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Max. speed [rpm]</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 30 rpm [s]</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>Swivel time 360° with 50 rpm [s]</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Jaw speed in positioning mode [rad/s]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Positioning delay [rad/s²]</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Electrical energy transfer</td>
<td>12x2A / 12x48V DC</td>
<td>12x2A / 12x48V DC</td>
</tr>
<tr>
<td>Pneumatic energy transfer [Quantity]</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Self limitation</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Power transfer</td>
<td>Helical gear / worm gear</td>
<td>Helical gear / worm gear</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP54</td>
<td></td>
</tr>
<tr>
<td>Net input voltage</td>
<td>1x200-240 VAC 50HZ</td>
<td></td>
</tr>
<tr>
<td>Continuous current [A]</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Peak current [A]</td>
<td>7.4</td>
<td></td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>15.9</td>
<td>15.5</td>
</tr>
</tbody>
</table>

*Third-party motor corresponding to the motor identification number, select page 644*
FLAT SWIVEL UNITS
DES SERIES ACCESSORIES

► RECOMMENDED ACCESSORIES

1. IndraWorks Drive Start
   ZUBHCSS
2. Drive controller Profibus
   ZUBHCS
3. Drive control unit SERCOS III, PROFINET, EtherCAT
   ZUBHCSME
4. Line filter
   ZUBHCSN
5. Programming cable
   ZUBHCSKAP01

3. Power cable 5 m
   ZUBHCSSkal05
4. Power cable 10 m
   ZUBHCSSkal10
5. Power cable 25 m
   ZUBHCSSkal25
6. Encoder cable 5 m
   ZUBHCSSKAG05
7. Encoder cable 10 m
   ZUBHCSSKAG10

6. Encoder cable 25 m
   ZUBHCSSKAG25
8. Straight Fittings - Quick Connect Style
   GV1-8X4
9. Angled Fittings - Quick Connect Style
   WV1-4X8
10. Round plug, straight - M23 plug
    RSTVSM23G12S-B
11. Round plug, angular - M23 plug
    RSTVSM23W12S-B

DES series accessories / Flatt Swivel Units / Specific to the customer / Swivel and Rotary Modules

www.zimmer-group.com   Data, Drawings, 3-D Models, Operating Instructions
### Technical data for motors

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical data for motors</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM019B</td>
<td>MSM031C</td>
</tr>
<tr>
<td>compatible with</td>
<td>DES140 DES190</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>BOSCH BOSCH</td>
</tr>
<tr>
<td>Nominal speed [rpm]</td>
<td>3000 3000</td>
</tr>
<tr>
<td>Max. speed [rpm]</td>
<td>5000 5000</td>
</tr>
<tr>
<td>Nominal torque [Nm]</td>
<td>0.32 1.3</td>
</tr>
<tr>
<td>Torque max. [Nm]</td>
<td>0.95 3.6</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP54 IP54</td>
</tr>
</tbody>
</table>

![Diagram of swivel and rotary modules](image-url)
ANGLE PIVOT UNITS
OVERVIEW OF SERIES
<table>
<thead>
<tr>
<th>PNEUMATIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series SWM1000</td>
</tr>
<tr>
<td>Series SW</td>
</tr>
</tbody>
</table>

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

PRODUCT ADVANTAGES

“The slim”

Optimised design
Adjusted to a gantry axle, you can integrate the unit in your machine loading system to save space

Large locating flange
The large mounting surface simplifies your design and allows secure attachment of follow-on tools

Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles

THE BEST PRODUCT FOR YOUR APPLICATION

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
**BENEFITS IN DETAIL**

1. **Mounting and positioning**
2. **Drive**
   - double-acting pneumatic cylinder
3. **Air flow control valve**
   - for speed regulation
   - included in scope of delivery
4. **Adjustable end position**
   - +/- 3° adjustable end position
5. **Intake flange**
   - for connection to application-specific adapter plate (to be supplied by the customer)
6. **Force transfer 90° pivoting**
   - toggle lever principle
7. **Patented, hydraulic shock absorber**
   - adjustable end position damping

**SERIES CHARACTERISTICS**

- Number of installation sizes: 4
- Swivel angle: 90°
- Torque: 10 Nm - 64 Nm
- Weight: 0.65 kg - 3.5 kg
- AP class: 3

- Powerstop end position damping
- Magnetic field sensor
- Positionability - 2 positions

- IP 30
- 10 million maintenance-free cycles (max.)

Data, Drawings, 3-D Models, Operating Instructions → www.zimmer-group.com
ANGLE PIVOT UNITS
INSTALLATION SIZE SWM1035

PRODUCT SPECIFICATIONS

Moment of inertia

Shows the torque when lifting vs the swivel angle.

Forces and moments

Indicates the static load on the bearing.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRVMSX4

Centering Disc
DST60800

RECOMMENDED ACCESSORIES

Attachment Kit
AN50046

Magnetic field sensor Angled Cable 0.3 m - Connector MB
MFS103SKHC

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Straight Cable 0.3 m - Connector MB
MFS204SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Plug-in connector Straight Cable 5m - Socket MB (female)
KAG500

Plug-in connector Angled Cable 5m - Socket MB (female)
KAW500

Shock Absorbers
MBX1M

Pressure Safety Valve
DSV1-8

Plug-in connector customizable Straight - Connector MB
SS-G-3
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SWM1035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Torque 0° [Nm]</td>
<td>10</td>
</tr>
<tr>
<td>Torque 45° [Nm]</td>
<td>7</td>
</tr>
<tr>
<td>Torque 90° [Nm]</td>
<td>10</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time without extension load [s]</td>
<td>0.3</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>55</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.65</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
ANGLE PIVOT UNITS
INSTALLATION SIZE SWM1045

PRODUCT SPECIFICATIONS

Moment of inertia

<table>
<thead>
<tr>
<th>Torque [Nm]</th>
<th>Swivel angle [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>30</td>
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<tr>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>25</td>
<td>90</td>
</tr>
</tbody>
</table>

Shows the torque when lifting vs the swivel angle.

Forces and moments

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>Mr [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>20</td>
</tr>
</tbody>
</table>

Indicates the static load on the bearing.

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRVM5X4

Centring Disc
BDST40800

RECOMMENDED ACCESSORIES

Attachment Kit
AN50047

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103KHC

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Plug-in connector Straight Cable 5 m - Socket M (female)
KAG500

Plug-in connector Angled Cable 5 m - Socket M (female)
KAW500

Shock Absorbers
M10X1H

Pressure Safety Valve
DSV1-8

Plug-in connector customizable Straight - Connector M8
S8-G-3
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SWM1045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Torque 0° [Nm]</td>
<td>21</td>
</tr>
<tr>
<td>Torque 45° [Nm]</td>
<td>14</td>
</tr>
<tr>
<td>Torque 90° [Nm]</td>
<td>21</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time without extension load [s]</td>
<td>0.4</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>110</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

### Fixings for Swivel Unit

1. Fixings for swivel unit
2. Energy supply
3. Fixing tool side
4. Integrated slot for magnetic field sensor
5. Adjusting screw end position

---

### Data, Drawings, 3-D Models, Operating Instructions

[www.zimmer-group.com](http://www.zimmer-group.com)
ANGLE PIVOT UNITS
INSTALLATION SIZE SWM1054

► PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Swivel angle</th>
<th>Mr [Nm]</th>
<th>Fa [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>30</td>
<td>400</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
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<tr>
<td>40</td>
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<tr>
<td>50</td>
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<tr>
<td>60</td>
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<tr>
<td>70</td>
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<tr>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicates the static load on the bearing.

► Included in delivery

Flow Control Valves - with Swivel joint
DRV1-8X6

Centering Disc
DST11500

► RECOMMENDED ACCESSORIES

Attachment Kit
AN50048

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Shock Absorbers
M12X1H

Pressure Safety Valve
DSV1-8

Plug-in connector customiz-able Straight - Connector M8
S8-G-3

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
## Technical Data *

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SWM1054</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [*]</td>
<td>90</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [*]</td>
<td>3</td>
</tr>
<tr>
<td>Torque 0° [Nm]</td>
<td>40</td>
</tr>
<tr>
<td>Torque 45° [Nm]</td>
<td>29</td>
</tr>
<tr>
<td>Torque 90° [Nm]</td>
<td>40</td>
</tr>
<tr>
<td>Repetition accuracy +/- [*]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time without extension load [s]</td>
<td>0.5</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>215</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Fixings for swivel unit

1. Fixings for swivel unit
2. Energy supply
3. Fixing tool side
4. Integrated slot for magnetic field sensor
5. Adjusting screw end position

---

![Diagram](https://www.zimmer-group.com)
ANGLE PIVOT UNITS
INSTALLATION SIZE SWM1063

► PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of inertia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows the torque when lifting vs the swivel angle.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forces and moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicates the static load on the bearing.</td>
</tr>
</tbody>
</table>

Data measured at 6 bar

Swivel angle [°]

Mr [Nm] 45

Fa [N] 500

► INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

Centering Disc
DST42000

► RECOMMENDED ACCESSORIES

Attachment Kit
AN5049

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Shock Absorbers
M14X1H

Pressure Safety Valve
DSV1-8

Plug-in connector customiz-able Straight - Connector M8
S8-G-3

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### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SWM1063</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Torque 0° [Nm]</td>
<td>64</td>
</tr>
<tr>
<td>Torque 45° [Nm]</td>
<td>39</td>
</tr>
<tr>
<td>Torque 90° [Nm]</td>
<td>64</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time without extension load [s]</td>
<td>0.6</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>340</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>3.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
ANGLE PIVOT UNITS
SERIES SW

► PRODUCT ADVANTAGES

“The superior”

► Up to 100% more performance than the benchmark
Superior end position damping lets you swivel more mass in the shortest amount of time, increasing your machine’s component output

► Includes two angle flanges
Reduce your design and manufacturing efforts with the angle pivot unit aligned on the machine loading system

► More than 100% higher radial bearing load than the benchmark
The generously scaled bearings stand for robustness and long service life and provide the highest process reliability for your application

► THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW50</td>
<td>two double acting pneumatic cylinders, hoseless pneumatic 4 way rotary distributor</td>
</tr>
<tr>
<td></td>
<td>two double acting pneumatic cylinders, hoseless pneumatic 8 way rotary distributor</td>
</tr>
</tbody>
</table>
**BENEFITS IN DETAIL**

1. **Air flow control valve**  
   - for speed regulation (included in the delivery)
2. **Sensing slot**  
   - mounting and positioning of magnetic field sensors
3. **Robust, lightweight housing**  
   - hard coated aluminium alloy
4. **Force transfer**  
   - rack and pinion
5. **Two way ball bearing hollow shaft**  
   - for feedthrough cables and hoses  
   - high forces and moments capacity
6. **Up to 8 way integrated air feed-through**  
   - for hoseless air transfer  
   - hose package does not have to be pivoted
7. **Mounting block**  
   - mounting for inductive proximity switch
8. **Integrated and patented hydraulic shock absorbers**  
   - adjustable end position damping  
   - heating is prevented through installation in pneumatic pressure chamber

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>6</td>
</tr>
<tr>
<td>Swivel angle</td>
<td>180°</td>
</tr>
<tr>
<td>Torque</td>
<td>1.5 Nm - 120 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>1.2 kg - 48.2 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
</tbody>
</table>

- Powerstop end position damping
- Fluid feed-through
- Magnetic field sensor
- Positionability - 2 positions
- 10 million maintenance-free cycles (max.)
- Inductive sensor
- IP 64
- IP64
ANGLE PIVOT UNITS
INSTALLATION SIZE SW50

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

Flow Control Valves - with Swiveljoint
DRVM5X4

O-Ring
COR0050100

RECOMMENDED ACCESSORIES

Magnetic field sensor
MFS204KHC

Magnetic field sensor
MFS204SKHC

Inductive proximity switch
NJ8-E2

Inductive proximity switch
NJ8-E2S

Attachment Kit
ANS0062

Plug-in connector Angled Cable 5 m
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KA0500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-6

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### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SW50D4-C</th>
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</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>1.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time [s]**</td>
<td>0.3</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>9</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>490</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>25</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5...80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>15</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
**without extension load

### Hoseless pneumatic feed-through (tool)

1. Fixings for swivel unit
2. Energy supply
3. Integrated air feed-through
4. Adjusting screw
5. Shock absorber
6. Fixing tool side
7. Fixing ANS
8. Switch cam 180°
9. Fix stop 180°
10. Integrated slot for magnetic field sensor
11. Adapter
12. Swivel unit
13. Air connection 180°
14. Air connection 0°
15. Alternate air connection (180°)
16. Alternate air connection (0°)

### Hoseless energy supply (machine)

1. Fixings for swivel unit
2. Energy supply
3. Integrated air feed-through
4. Adjusting screw
5. Shock absorber
6. Fixing tool side
7. Fixing ANS
8. Switch cam 180°
9. Fix stop 180°
10. Integrated slot for magnetic field sensor
11. Adapter
12. Swivel unit
13. Air connection 180°
14. Air connection 0°
15. Alternate air connection (180°)
16. Alternate air connection (0°)

### Installation size SW50 / Angle Pivot Units / pneumatic / Swivel- and Rotary Modules
ANGLE PIVOT UNITS
INSTALLATION SIZE SW74

► PRODUCT SPECIFICATIONS

► INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

O-Ring
COR0050100

► RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Inductive proximity switch
- Cable 5 m
NJ8-E2

Inductive proximity switch
- Connector M8
NJ8-E2S

Attachment Kit
ANS0063

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-6
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SW74D4-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>5.5</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time [s] **</td>
<td>0.3</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>12</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>1120</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>90</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>42</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**without extension load
ANGLE PIVOT UNITS
INSTALLATION SIZE SW100

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-8X6

O-Ring
COR0050100

RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Inductive proximity switch
- Cable 5 m
NJ8-E2

Inductive proximity switch
- Connector M8
NJ8-E2S

Attachment Kit
ANS0064

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KA0500

Plug-in connector customizable Straight - Connector M8
S9-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-6

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### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SW100D4-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>15</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time [s]**</td>
<td>0.5</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>15</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>2500</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>155</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>108</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>6.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
**without extension load

---

![Diagram](image-url)
PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  DRV1-4X8
- O-Ring
  COR000150

RECOMMENDED ACCESSORIES

- Magnetic field sensor Straight Cable 5 m
  MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  MFS204SKHC
- Inductive proximity switch - Cable 5 m
  NJ12-E2
- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  KAG500
- Plug-in connector customisable Straight - Connector M8
  S8-G-3
- Plug-in connector customisable Straight - Connector M12
  S12-G-3
- Pressure Safety Valve
  DSV1-8

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### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SW125D4-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>180</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>34</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time [s]**</td>
<td>0.6</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>26</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>3400</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>390</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>440</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>15.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**without extension load

---

**Installation Size SW125 / Angle Pivot Units / pneumatic / Swivel- and Rotary Modules**

Data, Drawings, 3-D Models, Operating Instructions  
www.zimmer-group.com
ANGLE PIVOT UNITS
INSTALLATION SIZE SW155

► PRODUCT SPECIFICATIONS

► INCLUDED IN DELIVERY

Flow Control Valves - with Swivel joint
DRV1-4X8

O-Ring
COR0090150

► RECOMMENDED ACCESSORIES

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Inductive proximity switch
- Cable 5 m
NJ12-E2

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customiz-
able Straight - Connector M8
S8-G-3

Plug-in connector customiz-
able Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-8

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### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SW155D4-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [*]</td>
<td>180°</td>
</tr>
<tr>
<td>Torque [Nm]</td>
<td>58 Nm</td>
</tr>
<tr>
<td>Repetition accuracy +/- [*]</td>
<td>0.01°</td>
</tr>
<tr>
<td>Swivel time [s]**</td>
<td>0.8 s</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40 mm</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>5900 N</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>760 Nm</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3 bar</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8 bar</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5°C to 80°C</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>730 cm³</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>25.3 kg</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
**without extension load

---

#### Technical Data

- Fixings for swivel unit
- Energy supply
- Integrated air feed-through
- Adjusting screw
- Shock absorber
- Fixing tool side
- Switch cam 180°
- Fix stop 180°
- Integrated slot for magnetic field sensor
- Adapter
- Swivel unit
- Air connection 180°
- Air connection 0°
- Alternate air connection (180°)
- Alternate air connection (0°)

---

#### Hoseless pneumatic feed-through (tool)

- O-Ring Ø9x1.5
- O-Ring Ø5x1.0

#### Hoseless pneumatic feed-through (machine)

- O-Ring Ø9x1.5
- O-Ring Ø5x1.0

#### Hoseless energy supply (machine)

- O-Ring Ø9x1.5
- O-Ring Ø5x1.0
ANGLE PIVOT UNITS
INSTALLATION SIZE SW195

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

- Flow Control Valves - with Swivel joint
  DRV1-4X8
- O-Ring
  COR0120150

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  Straight Cable 5 m
  MFS204KHC
- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS204SKHC
- Inductive proximity switch
  - Cable 5 m
  NJ12-E2
- Plug-in connector Angled Cable 5m - Socket M8 (female)
  KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female)
  KAG500
- Plug-in connector customizable Straight - Connector M8
  S8-G-3
- Plug-in connector customizable Straight - Connector M12
  S12-G-3
- Pressure Safety Valve
  DSV1-8

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### Order no.

<table>
<thead>
<tr>
<th>Technical Data*</th>
<th>SW195D8-C</th>
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<tr>
<td>Swivel angle ['']</td>
<td>180</td>
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<tr>
<td>Torque [Nm]</td>
<td>120</td>
</tr>
<tr>
<td>Repetition accuracy +/- ['']</td>
<td>0.01</td>
</tr>
<tr>
<td>Swivel time [s]**</td>
<td>1.1</td>
</tr>
<tr>
<td>Passage bore Ø [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>7000</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>1250</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5...80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1520</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>48.2</td>
</tr>
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</table>

*All data measured at 6 bar

**without extension load
SWIVEL JAWS
OVERVIEW OF SERIES
PNEUMATIC

<table>
<thead>
<tr>
<th></th>
<th>SB</th>
<th>SBZ</th>
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<tbody>
<tr>
<td>Series SB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series SBZ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SWIVEL JAWS
SERIES SB

► PRODUCT ADVANTAGES

“The economical”

► Concentration on the essentials
The most cost-effective type of swivelling reduces your production costs

► Proven technology
We have more than 20 years of proven reliability, which ensures uninterrupted production for you

► Flexible swivel angle
90° or 180°; you decide which using the provided limit stops. This allows you to be flexible while only needing to maintain one product in your system

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Drive shaft**
   - as hexagonal or round shaft with feather key, depending on design
   - quick and cost effective positioning of application-specific workpiece intakes

2. **Two way bearing drive shaft**
   - high forces and moments capacity

3. **Stop**
   - swivel angle of 90 and 180°
   - stable, with Fibroflex stop surface

4. **Position sensing**
   - inquiry of end positions 0° and 90° (or 180°) via inductive proximity switch
   - integrated in housing, therefore no additional interference contour

5. **End position**
   - +/- 3° adjustable end position

6. **Force transfer**
   - stable toothed belt with steel reinforcement
   - quiet, reliable, durable

7. **Energy supply**
   - possible from several sides

8. **Drive**
   - double-acting rotor cylinder

**SERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>3</td>
</tr>
<tr>
<td>Swivel angle</td>
<td>90° - 180°</td>
</tr>
<tr>
<td>Torque</td>
<td>0,1 Nm - 1,6 Nm</td>
</tr>
<tr>
<td>Weight (pair)</td>
<td>0,3 kg - 2,2 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>2</td>
</tr>
</tbody>
</table>

- Elastomer end position damping
- Adjustable swivel angle
- Inductive sensor
- Positionability - 2 positions
- 10 million maintenance-free cycles (max.)
**SWIVEL JAWS**

**INSTALLATION SIZE SB32**

### PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of inertia</th>
<th>Forces and moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows the expected swivel time against the calculated moment of inertia (best rig parameters)</td>
<td></td>
</tr>
<tr>
<td>Indicates the static load on the bearing.</td>
<td></td>
</tr>
</tbody>
</table>

### INCLUDED IN DELIVERY

- **Stop 90°**
  - GEH03350
- **Stop 180°**
  - GEH03340
- **Sleeve For Proximity Switch**
  - DMS03210
- **Cylinder Pin**
  - C632504100

### RECOMMENDED ACCESSORIES

- **Inductive proximity switch - Cable 5 m**
  - NJ4-E2
- **Inductive Proximity Switch Cable 0.3 m - Connector M8**
  - NJ4-E2SK
- **Basic jaw**
  - SB32-1-B
- **Basic jaw**
  - SB32-1-B-01
- **Basic Jaw Rubberized**
  - SB32-2-B
- **Plug-in connector Angled Cable 5 m - Socket M8 (female)**
  - KAW500
- **Plug-in connector Straight Cable 5 m - Socket M8 (female)**
  - KAG500
- **Plug-in connector customizable Straight - Connector M8**
  - S8-G-3
- **Plug-in connector customizable Straight - Connector M12**
  - S12-G-3
- **Pressure Safety Valve**
  - DSV1-8
**Technical Data**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SB32-D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90 / 180</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.5</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>2</td>
</tr>
<tr>
<td>Weight (pair) [kg]</td>
<td>0.3</td>
</tr>
<tr>
<td>FD [N] **</td>
<td>90</td>
</tr>
<tr>
<td>FZ [N] **</td>
<td>90</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Observe the gripper force

---

**Fixings for swivel unit
**Energy supply
**Adjusting screw
**Fixing tool side
**Fix stop 90° or 180°
**Intake for proximity switch
**Direction of rotation
**Screw for clamping of the proximity switch
**Alternate air connection swivel to 90° or 180°
**Alternate air connection swivel (0°)

---

**Data, Drawings, 3-D Models, Operating Instructions**

www.zimmer-group.com
SWIVEL JAWS
INSTALLATION SIZE SB40

► PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Moment of inertia</th>
<th>Forces and moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>(kg cm²)</td>
<td>Indicators the static load on the bearing.</td>
</tr>
<tr>
<td>Shows the expected swivel time against the calculated moment of inertia (test rig pairwise)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>Mr [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>770</td>
<td>10.8</td>
</tr>
</tbody>
</table>

► INCLUDED IN DELIVERY

- Stop 90°: GEH04160
- Stop 180°: GEH04150
- Sleeve For Proximity Switch: DMS03210
- Cylinder Pin: C632504100

► RECOMMENDED ACCESSORIES

- Inductive proximity switch - Cable 5 m: NJ4-E2
- Inductive Proximity Switch Cable 0.3 m - Connector M8: NJ4-E2SK
- Basic jaw: SB40-1
- Basic Jaw Rubberized: SB40-2
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5 m - Socket M8 (female): KAG500
- Plug-in connector customizable Straight - Connector M8: SS-G-3
- Plug-in connector customizable Straight - Connector M12: S12-G-3
- Pressure Safety Valve: DSV1-8
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SB40-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90 / 180</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>0.3</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.5</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>4</td>
</tr>
<tr>
<td>Weight (pair) [kg]</td>
<td>0.7</td>
</tr>
<tr>
<td>FD [N]**</td>
<td>385</td>
</tr>
<tr>
<td>FZ [N]**</td>
<td>385</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Observe the gripper force

1. Fixings for swivel unit
2. Energy supply
3. Adjusting screw
4. Fixing tool side
5. Fix stop 90° or 180°
6. Direction of rotation
7. Intake for proximity switch
8. Screw for clamping of the proximity switch
9. Air connection swivel to 90° or 180°
10. Air connection swivel (0°)
11. Alternate air connection swivel to 90° or 180°
12. Alternate air connection swivel (0°)
**SWIVEL JAWS**

**INSTALLATION SIZE SB54**

---

**PRODUCT SPECIFICATIONS**

- **Moment of Inertia**
  
  Shows the expected swivel time against the calculated moment of inertia (test rig pairwise).

- **Forces and moments**
  
  Indicates the static load on the bearing.

---

**INCLUDED IN DELIVERY**

- Stop 90°
  
  GEH05501

- Stop 180°
  
  GEH05491

- Sleeve for Proximity Switch
  
  DMS03210

- Straight pin
  
  KUN05410

---

**RECOMMENDED ACCESSORIES**

- Inductive proximity switch - Cable 5 m
  
  NJ4-E2

- Inductive Proximity Switch Cable 0.3 m - Connector M8
  
  NJ4-E2SK

- Basic jaw
  
  SB54-1

- Basic Jaw Rubberized
  
  SB54-2

- Plug-in connector Angled Cable 5 m - Socket M8 (female)
  
  KAW500

- Plug-in connector Straight Cable 5 m - Socket M8 (female)
  
  SAG500

- Plug-in connector customiz-able Straight - Connector M8
  
  S8-G-3

- Plug-in connector customiz-able Straight - Connector M12
  
  S12-G-3

- Pressure Safety Valve
  
  DSV1-8
### Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SB54-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90 / 180</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>1.6</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.5</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>16</td>
</tr>
<tr>
<td>Weight (pair) [kg]</td>
<td>2.2</td>
</tr>
<tr>
<td>FD [N] *</td>
<td>425</td>
</tr>
<tr>
<td>FZ [N] **</td>
<td>425</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Observe the gripper force

---

#### Fixings for swivel unit

1. Fixing tool side
2. Fix stop 90° or 180°
3. Direction of rotation
4. Screw for clamping of the proximity switch
5. Intake for proximity switch
6. Air connection swivel (°)
7. Alternate air connection swivel to 90° or 180°
8. Alternate air connection swivel (0°)

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
Our products love the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

Find the best product for your specific use:

www.zimmer-group.com

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SB100</th>
<th>G</th>
<th>-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation angle 90°</td>
<td>-90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotation angle 180°</td>
<td>-180</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PRODUCT ADVANTAGES**

"The superior"

- **Shock absorber with spiral groove technology**

  Superior end position damping lets you swivel more mass in the shortest amount of time, increasing your machine’s component output.

- **Force transmission via gear wheel set**

  The robust gear wheels stand for precision, reliability and long service life and guarantee smooth operation.

- **Failure-free continuous operation**

  Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free gripping cycles.

**THE BEST PRODUCT FOR YOUR APPLICATION**

- Our products love the challenge!

  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

  Find the best product for your specific use:

  www.zimmer-group.com

Series SBZ / Swivel Jaws / Pneumatic / Swivel- and Rotary Modules
### BENEFITS IN DETAIL

1. **Two way bearing drive shaft**
   - high forces and moments capacity

2. **Drive flange**
   - large size drive flange with end stop and large central hole (from SB150)

3. **Force transfer**
   - stable gear wheel set
   - precise, reliable, durable

4. **Position sensing**
   - inquiry of end positions 0° and 90° (or 180°) via inductive proximity switch
   - adjustable on rotatable switch cam

5. **Drive**
   - double-acting pneumatic cylinder

6. **Air flow control valve**
   - for speed regulation (included in the delivery)

7. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning

8. **Integrated and patented hydraulic shock absorbers**
   - adjustable end position damping

### SERIES CHARACTERISTICS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of installation sizes</td>
<td>5</td>
</tr>
<tr>
<td>Swivel angle</td>
<td>90° - 180°</td>
</tr>
<tr>
<td>Torque</td>
<td>1,2 Nm - 57 Nm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.45 kg - 28 kg</td>
</tr>
<tr>
<td>AP class</td>
<td>3</td>
</tr>
<tr>
<td>Powerstop end position damping</td>
<td>IP 54</td>
</tr>
<tr>
<td>Inductive sensor</td>
<td>IP54</td>
</tr>
<tr>
<td>Positionability - 2 positions</td>
<td>10 million maintenance-free cycles (max.)</td>
</tr>
</tbody>
</table>
SWIVEL JAWS
INSTALLATION SIZE SB50

PRODUCT SPECIFICATIONS

- Moment of inertia
  - Shows the expected swivel time against the calculated moment of inertia

- Forces and moments
  - Indicates the static load on the bearing.

INCLUDED IN DELIVERY

- Mounting block
  - KB8K-02

- Flow Control Valves - with Swivel joint
  - DRVMSX4

RECOMMENDED ACCESSORIES

- Inductive proximity switch - Cable 5 m
  - NJ8-E2

- Inductive proximity switch - Connector M8
  - NJ8-E2S

- Plug in connector Angled Cable 5 m - Socket M8 (female)
  - KAI500

- Plug in connector Straight Cable 5 m - Socket M8 (female)
  - KAG500

- Plug in connector customizable Straight - Connector M8
  - S8-G-3

- Pressure Safety Valve
  - DSV1-8

- Fa [N] 1720
- Mr [Nm] 15
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SB50-90-B</th>
<th>SB50-180-B</th>
<th>SB50G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>-</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>1.2</td>
<td>1.2</td>
<td>-</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>-</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>5.5</td>
<td>7.5</td>
<td>-</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>0.75</td>
<td>0.75</td>
<td>0.45</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>860</td>
<td>860</td>
<td>630</td>
</tr>
<tr>
<td>FD [N]</td>
<td>630</td>
<td>630</td>
<td>630</td>
</tr>
<tr>
<td>FZ [N]</td>
<td>630</td>
<td>630</td>
<td>630</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Observe the gripper force

---

*Fixings for swivel unit
Energy supply
Adjusting screw
Attachment for mounting block
Fixing tool side
Fix stop 90° or 180°
Switch cam 90° or 180°
Direction of rotation
Air connection swivel to 90° or 180°
Air connection swivel (0°)
Alternate air connection swivel to 90° or 180°
Alternate air connection swivel (0°)
SWIVEL JAWS
INSTALLATION SIZE SB74

► PRODUCT SPECIFICATIONS

![Graph showing moment of inertia](image)

<table>
<thead>
<tr>
<th>Moment of inertia</th>
<th>Forces and moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>kg m²</td>
<td>Indicated static load on the bearing.</td>
</tr>
<tr>
<td>0.6</td>
<td>1.2</td>
</tr>
<tr>
<td>0.3</td>
<td>0.9</td>
</tr>
<tr>
<td>0.9</td>
<td>1.5</td>
</tr>
<tr>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>1.5</td>
<td>3</td>
</tr>
</tbody>
</table>

![Graph showing expected swivel time against calculated moment of inertia](image)

Fa [N] 2400
Mr [Nm] 20

► INCLUDED IN DELIVERY

- Mounting block: KB8K-02
- Flow Control Valves - with Swivel joint: DRVM5X4

► RECOMMENDED ACCESSORIES

- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S
- Plug in connector Angled Cable 5m - Socket M8 (female): KAW500
- Plug in connector Straight Cable 5m - Socket M8 (female): KAG500
- Plug in connector customizable Straight - Connector M8: S8-G-3

- Plug in connector customizable Straight - Connector M8: S12-G-3

- Pressure Safety Valve: DSV1-0
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>SB74-90-B</th>
<th>SB74-180-B</th>
<th>SB74G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>-</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>3.5</td>
<td>3.5</td>
<td>-</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>-</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>16</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.7</td>
<td>1.7</td>
<td>1.1</td>
</tr>
<tr>
<td>FD [N]**</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>FZ [N]**</td>
<td>630</td>
<td>630</td>
<td>630</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Observe the gripper force

---

![Diagram](image-url)

1. Fixings for swivel unit
2. Energy supply
3. Adjusting screw
4. Attachment for mounting block
5. Fixing tool side
6. Fix stop 90° or 180°
7. Switch cam 90° or 180°
8. Direction of rotation
9. Air connection swivel to 90° or 180°
10. Air connection swivel (0°)
11. Alternate air connection swivel to 90° or 180°
12. Alternate air connection swivel (0°)
**SWIVEL JAWS**
**INSTALLATION SIZE SB100**

### PRODUCT SPECIFICATIONS

#### Moment of Inertia

<table>
<thead>
<tr>
<th>[kg m²]</th>
<th>Shows the expected swivel time against the calculated moment of inertia</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.08</td>
</tr>
<tr>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td>3.2</td>
<td>1.6</td>
</tr>
<tr>
<td>4.8</td>
<td>2.4</td>
</tr>
</tbody>
</table>

#### Forces and Moments

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>70</td>
</tr>
</tbody>
</table>

**Included in Delivery**

- Mounting block: KB8K-02
- Flow Control Valves - with Swivel joint: DRV1-8X6

**Recommended Accessories**

- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S
- Plug-in connector Angled Cable 5m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female): KAG500
- Plug-in connector customizable Straight - Connector M8: SS-G-3
- Plug-in connector customizable Straight - Connector M12: S12-G-3
- Pressure Safety Valve: DSV1-8
- KAW500 KAG500 S8-G-3

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SB100-90-B</th>
<th>SB100-180-B</th>
<th>SB100G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>-</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>10</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>-</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>40</td>
<td>54</td>
<td>-</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>FZ [N]**</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Observe the gripper force
SWIVEL JAWS
INSTALLATION SIZE SB150

PRODUCT SPECIFICATIONS

- **Moment of inertia**
  - Shows the expected swivel time against the calculated moment of inertia.

- **Forces and moments**
  - Indicates the static load on the bearing.

<table>
<thead>
<tr>
<th>Fa [N]</th>
<th>15000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>270</td>
</tr>
</tbody>
</table>

INCLUDED IN DELIVERY

- Mounting block: KB8K
- Flow Control Valves - with Swivel joint: DRV1-4X8

RECOMMENDED ACCESSORIES

- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S
- Plug-in connector Angled Cable 5m - Socket M8 (female): KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female): KAG500
- Plug-in connector customizable Straight - Connector M8: S8-G-3
- Plug-in connector customizable Straight - Connector M12: S12-G-3
- Pressure Safety Valve: DSV1-8

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Data, Drawings, 3-D Models, Operating Instructions
## Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SB150-90</th>
<th>SB150-180</th>
<th>SB150G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>90</td>
<td>180</td>
<td>-</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>23</td>
<td>23</td>
<td>-</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [°]</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Repetition accuracy +/- [°]</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>8</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>190</td>
<td>260</td>
<td>-</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>11</td>
<td>11</td>
<td>6.5</td>
</tr>
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</table>

**FD [N]** **FZ [N]**

<table>
<thead>
<tr>
<th></th>
<th>SB150-90</th>
<th>SB150-180</th>
<th>SB150G</th>
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<tbody>
<tr>
<td></td>
<td>7500</td>
<td>7500</td>
<td>7500</td>
</tr>
<tr>
<td></td>
<td>3700</td>
<td>3700</td>
<td>3700</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

**Observe the gripper force

---

### Fixings for swivel unit

1. Fixing for swivel unit
2. Energy supply
3. Adjusting screw
4. Attachment for mounting block
5. Fixing tool side
6. Fix stop 90° or 180°
7. Switch cam 90° or 180°
8. Direction of rotation
9. Air connection swivel to 90° or 180°
10. Air connection swivel (0°)
11. Alternate air connection swivel to 90° or 180°
12. Alternate air connection swivel (0°)
SWIVEL JAWS
INSTALLATION SIZE SB190

PRODUCT SPECIFICATIONS

- Moment of inertia
  - Shows the expected swivel time against the calculated moment of inertia
- Forces and moments
  - Indicates the static load on the bearing.

INCLUDED IN DELIVERY

- Mounting block
  - KB12-03
- Flow Control Valves - with Swivel joint
  - DRV1-4X8

RECOMMENDED ACCESSORIES

- Inductive proximity switch
  - Cable 5 m
  - NJ12-E2
- Inductive proximity switch
  - Connector M8
  - NJ12-E2S
- Plug-in connector Angled
  - Cable 5m - Socket M8 (female)
  - KAW500
- Plug-in connector Straight
  - Cable 5m - Socket M8 (female)
  - KAG500
- Plug-in connector customizable Straight - Connector M8
  - S8-G-3

- Plug-in connector customizable Straight - Connector M12
  - S12-G-3
- Pressure Safety Valve
  - DSV1-E
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SB190-90</td>
</tr>
<tr>
<td>Swivel angle [*]</td>
<td>90</td>
</tr>
<tr>
<td>Torque per jaw [Nm]</td>
<td>57</td>
</tr>
<tr>
<td>Swivel angle regulable +/- [*]</td>
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</tr>
<tr>
<td>Repetition accuracy +/- [*]</td>
<td>0.01</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>320</td>
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<tr>
<td>Weight [kg]</td>
<td>28</td>
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<tr>
<td>FD [N]**</td>
<td>12500</td>
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<tr>
<td>FZ [N]**</td>
<td>6100</td>
</tr>
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</table>

* All data measured at 6 bar
** Observe the gripper force

*Fixings for swivel unit
*Adjusting screw
*Attachmnet for mounting block
*Fixing tool side
*Fix stop 90° or 180°
*Switch cam 90° or 180°
*Direction of rotation
*Air connection swivel to 90° or 180°
*Air connection swivel (0°)
*Alternate air connection swivel to 90° or 180°
*Alternate air connection swivel (0°)
<table>
<thead>
<tr>
<th>PNEUMATIC</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Series SHX</td>
<td>696</td>
<td></td>
</tr>
<tr>
<td>Series LI</td>
<td>702</td>
<td></td>
</tr>
</tbody>
</table>
LINEAR CYLINDERS
SERIES SHX

PRODUCT ADVANTAGES

- Proven technology
  We have more than 20 years of proven reliability, which ensures uninterrupted production for you

- Constant drive force
  Equal force and travel time when retracting and extending increases your machine’s process reliability

- Failure-free continuous operation
  Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SHX-</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous piston rod</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
**BENEFITS IN DETAIL**

1. **Connection to customer specific application**
   - possible from several sides on XD series
2. **Energy supply**
   - reducing exhaust air is recommended
3. **Drive**
   - double-acting pneumatic cylinder
4. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning
5. **Piston rod**
   - polished, hard chrome plated steel
   - continuous in design XD

**FURTHER INFORMATION IS AVAILABLE ONLINE**

- **Technical Information**
  All information just a click away at: www.zimmer-group.com
  Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
  Quick, clear and always up-to-date.
LINEAR CYLINDERS
INSTALLATION SIZE SH-X

PRODUCT SPECIFICATIONS

Flow Control Valves - with Swivel joint
DRVM5X4

Inductive proximity switch - Cable 5 m
NJ3-E2

Inductive Proximity Switch Cable 0.3 m - Connector M8
NJ3-E2SK

Mounting block
KB3M

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-8

RECOMMENDED ACCESSORIES
<table>
<thead>
<tr>
<th>Order no.</th>
<th>SH-X7</th>
<th>SH-X15</th>
<th>SH-X25</th>
<th>SH-X50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke (mm)</td>
<td>7</td>
<td>15</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Extension time [ms]</td>
<td>5</td>
<td>15</td>
<td>34</td>
<td>66</td>
</tr>
<tr>
<td>Retraction time [ms]</td>
<td>7.5</td>
<td>24</td>
<td>60</td>
<td>124</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1.7</td>
<td>3.4</td>
<td>13.4</td>
<td>30</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.09</td>
<td>0.1</td>
<td>0.13</td>
<td>0.18</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
LINEAR CYLINDERS
INSTALLATION SIZE SH-XD

PRODUCT SPECIFICATIONS

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVMSX4

Inductive proximity switch
- Cable 5 m
NJ3-E2

Inductive Proximity Switch
- Cable 0,3 m - Connector M8
NJ3-E2SK

Mounting block
KB3M

Plug-in connector Angled
Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customisable Straight - Connector M8
S8-G-3

Plug-in connector customisable Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-8
## Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>SH-XD25</th>
<th>SH-XD50</th>
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</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.19</td>
<td>0.27</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

**Fixing linear cylinder**

**Energy supply**

**Fixing application**

**Fixing for mounting block**

**Extend position**

**Air connection (retract)**

**Air connection (extend)**

---

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LINEAR CYLINDERS
SERIES LI

► PRODUCT ADVANTAGES

► Large locating flange
The large mounting surface simplifies your design and allows secure attachment of follow-on tools

► Dampened end position
By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application

► Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

► THE BEST PRODUCT FOR YOUR APPLICATION

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

HOW TO ORDER CORRECTLY

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

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI40</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 way guiding, continuous piston rod</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>2 way guiding</td>
<td>S</td>
<td></td>
</tr>
</tbody>
</table>
BENEFITS IN DETAIL

1. Guide rod
   - hardened, polished steel shaft

2. Mounting block
   - mounting for inductive proximity switch

3. Drive
   - double-acting pneumatic cylinder

4. Energy supply
   - reducing exhaust air is recommended

5. End stop confirmation screw
   - direct flange position sensing
   - included in scope of delivery

6. End position damping
   - with elastomer absorber or patented hydraulic shock absorber

7. Piston rod
   - polished, hard chrome plated steel
   - continuous in design D

8. Intake flange
   - for connection to application-specific adapter plate (to be supplied by the customer)

FURTHER INFORMATION IS AVAILABLE ONLINE

Technical Information
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LINEAR CYLINDERS
INSTALLATION SIZE LI16

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVM5X4

Inductive proximity switch - Connector M8
NJ8-E25

Centering Disc
ZE12H7X4

Adapter plate
AP16

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500
**Technical Data**

<table>
<thead>
<tr>
<th></th>
<th>LI16-20</th>
<th>LI16-35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.04</td>
<td>0.07</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.15</td>
<td>0.18</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
LINEAR CYLINDERS
INSTALLATION SIZE LI16D

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVM5X4

Inductive proximity switch - Connector M8
NJ8-E25

Centering Disc
ZE12H7X4

Adapter plate
AP16

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500
<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI16-50D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>50</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>80</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>80</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>15</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.3</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>40</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVMSX4

Inductive proximity switch - Connector M8
NJ12-E2S

Shock Absorbers
M10X1S

Shock Absorbers
AD-M10X1

Centering Disc
ZE20H7X4

Adapter plate
AP30

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Absorber intake
HV30
## Order no.

<table>
<thead>
<tr>
<th></th>
<th>LI30-15</th>
<th>LI30-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.06</td>
<td>0.14</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.3</td>
<td>0.36</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>70</td>
<td>50</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Technical Data*

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Fixing for adapter plate
5. Fixing for HV-flange
6. Intake proximity switch
7. Air connection (retract)
8. Air connection (extend)

---

[Data, Drawings, 3-D Models, Operating Instructions](http://www.zimmer-group.com)
LINEAR CYLINDERS
LI30-60 / LI30-90

PRODUCT SPECIFICATIONS

- Forces and moments
  Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

- Flow Control Valves - with Swivel joint
  DRVMSX4

- Inductive proximity switch
  Connector M8
  NJ12-E2S

- Shock Absorbers
  M10X1S

- Shock Absorbers
  AD-M10X1

- Centering Disc
  ZE20H7X4

- Adapter plate
  AP30

- Plug-in connector Angled Cable 5m - Socket M8 (female)
  KAW500

- Plug-in connector Straight Cable 5m - Socket M8 (female)
  KAG500

- Absorber intake
  HV30
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI30-60</th>
<th>LI30-90</th>
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</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.25</td>
<td>0.26</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>50</td>
<td>92</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.46</td>
<td>0.56</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar

---

Data, Drawings, 3-D Models, Operating Instructions  ▶ www.zimmer-group.com  711

---
LINEAR CYLINDERS
INSTALLATION SIZE LI30D

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

- Shock Absorbers: AD-M10X1
- Adapter plate: AP30
- Flow Control Valves - with Swivel joint: DRVM5X4
- Absorber intake: HV30
- Plug-in connector: KAG500
- Plug-in connector: KAW500
- Shock Absorbers: M10X1S
- Inductive proximity switch: NJ12-E2S
- Centering Disc: ZE20H7X4
## Order no.

<table>
<thead>
<tr>
<th></th>
<th>LI30-60D</th>
<th>LI30-90D</th>
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</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>60</td>
<td>90</td>
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<tr>
<td>Pressure force max. [N]</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>200</td>
<td>200</td>
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<tr>
<td>Travel time without external load [s]</td>
<td>0.21</td>
<td>0.25</td>
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<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
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<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>50</td>
<td>66</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.7</td>
<td>0.85</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Technical Data*

- **Fixing linear cylinder**
- **Energy supply**
- **Fixing application**
- **Fixing for adapter plate**
- **Fixing for HV-flange**
- **Intake proximity switch**
- **Air connection (retract)**
- **Air connection (extend)**

---

### Installation size LI30D / Linear Cylinders / pneumatic / Linear Modules

---

Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com  713
LINEAR CYLINDERS
INSTALLATION SIZE LI40

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVMSX4

Inductive proximity switch
NJ12-E2S

Shock Absorbers
M10X1S

Shock Absorbers
AD-M10X1

Centering Disc
ZE20H7X4

Adapter plate
AP40

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Absorber intake
HV40
## Technical Data*

<table>
<thead>
<tr>
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<th>LI40-40</th>
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<tbody>
<tr>
<td><strong>Order no.</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Stroke [mm]</strong></td>
<td>40</td>
<td>90</td>
</tr>
<tr>
<td><strong>Pressure force max. [N]</strong></td>
<td>450</td>
<td>450</td>
</tr>
<tr>
<td><strong>Retraction force [N]</strong></td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td><strong>Travel time without external load [s]</strong></td>
<td>0.08</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Operating temperature min. [°C]</strong></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Operating temperature max. [°C]</strong></td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td><strong>Air volume per cycle [cm³]</strong></td>
<td>50</td>
<td>117</td>
</tr>
<tr>
<td><strong>Weight [kg]</strong></td>
<td>0.74</td>
<td>0.88</td>
</tr>
<tr>
<td><strong>Load My max. [N]</strong></td>
<td>80</td>
<td>30</td>
</tr>
<tr>
<td><strong>Max. deflection A [mm]</strong></td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Fixing for adapter plate
5. Fixing for HV-flange
6. Intake proximity switch
7. Air connection (retract)
8. Air connection (extend)
LINEAR CYLINDERS
LI40-90S / LI40-130S / LI40-160S

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Inductive proximity switch - Connector M8
NJ12-E2S

Shock Absorbers
M14X1.5S

Shock Absorbers
AD-M14X1.5

Stop Stroke Adjustment Screws
AI-M8X1.53

Centering Disc
ZE30H7X4

Adapter plate
AP40-S

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAIW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI40-90S</th>
<th>LI40-130S</th>
<th>LI40-160S</th>
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</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>90</td>
<td>130</td>
<td>160</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>270</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>270</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.09</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>100</td>
<td>133</td>
<td>166</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.9</td>
<td>3.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>300</td>
<td>230</td>
<td>150</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.09</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>Radial load Mr max. [Ncm]</td>
<td>600</td>
<td>400</td>
<td>320</td>
</tr>
<tr>
<td>Max. rotation D at 100 mm [mm]</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Fixing for adapter plate
6. Intake for shock absorbers
7. Intake proximity switch
8. Intake for fix stop
9. Air connection (retract)
10. Air connection (extend)
LINEAR CYLINDERS
LI40-200S / LI40-250S / LI40-300S

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Inductive proximity switch - Connector M8
NJ12-E2S

Shock Absorbers
M14X1.5S

Shock Absorbers
AD-M14X1.5

Stop Stroke Adjustment Screws
AJ-M8X1-53

Centering Disc
ZE30HTX4

Adapter plate
AP40-S

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAN500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI40-200S</th>
<th>LI40-250S</th>
<th>LI40-300S</th>
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<tbody>
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<td>Stroke [mm]</td>
<td>200</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>270</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>270</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.22</td>
<td>0.28</td>
<td>0.4</td>
</tr>
<tr>
<td>Radial load Mr max. [Ncm]</td>
<td>230</td>
<td>130</td>
<td>100</td>
</tr>
<tr>
<td>Max. rotation D at 100 mm [mm]</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>216</td>
<td>266</td>
<td>316</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.5</td>
<td>5.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>120</td>
<td>90</td>
<td>65</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.2</td>
<td>0.25</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*
PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Inductive proximity switch - Connector M8
NJ12-E2S

Shock Absorbers
M20X1.5S

Stop Stroke Adjustment Screws
AI-M6X1-53

Centering Disc
ZE30H7X4

Adapter plate
AP50-S

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500
<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI50-50S</th>
<th>LI50-90S</th>
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</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.13</td>
<td>0.24</td>
</tr>
<tr>
<td>Radial load Mr max. [Ncm]</td>
<td>1500</td>
<td>1100</td>
</tr>
<tr>
<td>Max. rotation D at 100 mm [mm]</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>166</td>
<td>300</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>300</td>
<td>200</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.03</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Fixing for adapter plate
6. Intake for shock absorbers
7. Intake proximity switch
8. Air connection (retract)
9. Air connection (extend)
LINEAR CYLINDERS
LI50-130S / LI50-160S / LI50-200S

► PRODUCT SPECIFICATIONS

► Forces and moments
Max allowable static forces and moments.

► RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Inductive proximity switch - Connector M8
NJ12-E2S

Shock Absorbers
M20X1.5S

Stop Stroke Adjustment Screws
AI-M6X1-53

Centering Disc
ZE30H7X4

Adapter plate
AP50-S

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI50-130S</th>
<th>LI50-160S</th>
<th>LI50-200S</th>
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</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>130</td>
<td>160</td>
<td>200</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>950</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>950</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.34</td>
<td>0.42</td>
<td>0.48</td>
</tr>
<tr>
<td>Radial load Mr max. [Ncm]</td>
<td>900</td>
<td>750</td>
<td>400</td>
</tr>
<tr>
<td>Max. rotation D at 100 mm [mm]</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</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>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>433</td>
<td>533</td>
<td>666</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.4</td>
<td>4.8</td>
<td>5.5</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>130</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.05</td>
<td>0.08</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar*

---

[Image of diagrams and dimensions]

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Fixing for adapter plate
6. Intake for shock absorbers
7. Intake proximity switch
8. Air connection (retract)
9. Air connection (extend)

---

Data, Drawings, 3-D Models, Operating Instructions  ▶  www.zimmer-group.com
LINEAR CYLINDERS
LI50-250S / LI50-300S

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-6X6

Inductive proximity switch - Connector M8
NJ12-E2S

Shock Absorbers
M20X1.5S

Stop Stroke Adjustment Screws
AI-MBX1-S3

Centering Disc
ZE30H7X4

Adapter plate
AP50-S

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

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## Technical Data*  
<table>
<thead>
<tr>
<th>Order no.</th>
<th>LI50-250S</th>
<th>LI50-300S</th>
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<tbody>
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<td>Stroke [mm]</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>950</td>
<td>950</td>
</tr>
<tr>
<td>Travel time without external load [s]</td>
<td>0.63</td>
<td>0.84</td>
</tr>
<tr>
<td>Radial load Mr max. [Ncm]</td>
<td>250</td>
<td>200</td>
</tr>
<tr>
<td>Max. rotation D at 100 mm [mm]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>833</td>
<td>1000</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>6.4</td>
<td>7.2</td>
</tr>
<tr>
<td>Load My max. [N]</td>
<td>75</td>
<td>55</td>
</tr>
<tr>
<td>Max. deflection A [mm]</td>
<td>0.15</td>
<td>0.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

### Fixing Linear Cylinder
1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Fixing for adapter plate
6. Intake for shock absorbers
7. Intake proximity switch
8. Air connection (retract)
9. Air connection (extend)

### Data, Drawings, 3-D Models, Operating Instructions
www.zimmer-group.com  

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Lin50-250S / Lin50-300S / Linear Cylinders / Pneumatic / Linear Modules
LINEAR RAIL SLIDES
OVERVIEW OF SERIES
<table>
<thead>
<tr>
<th>PNEUMATIC</th>
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<tr>
<td>Series LS</td>
<td></td>
<td>728</td>
</tr>
<tr>
<td>Series LSF</td>
<td></td>
<td>738</td>
</tr>
<tr>
<td>Series LSX</td>
<td></td>
<td>744</td>
</tr>
</tbody>
</table>
Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Linear guide with recirculating ball and wiper**
   - dual linear guidance for high forces and moments capacity

2. **Mounting groove**
   - quick and cost-effective positioning of adapter plates: Accessory, Art. No. AP...*

3. **Energy supply**
   - possible from several sides

4. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning

5. **Mounting groove for magnetic field sensor integrated, space saving position sensing**

6. **Drive**
   - double-acting pneumatic cylinder

7. **Robust, lightweight housing**
   - hard coated aluminium alloy

8. **Stroke limiting screw**

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**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**
All information just a click away at: www.zimmer-group.com
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.
LINEAR RAIL SLIDES
LS10-25

PRODUCT SPECIFICATIONS

Time diagram
Travel time vs the extension load

Forces and moments
Max allowable static forces and moments on face A.

<table>
<thead>
<tr>
<th>Mb [Nm]</th>
<th>Mc [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Load diagram
Deflection under load vs the stroke

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVM3X4

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Adapter plate
APLS10G

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customizable Straight - Connector M8
S8-G-3

Plug-in connector customizable Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-8

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
Order no. | LS10-25
---|---
Stroke [mm] | 25
Pressure force max. [N] | 40
Retraction force [N] | 30
Piston diameter [mm] | 10
Guide rail size [mm] | 7
Operating temperature min. [°C] | 5
Operating temperature max. [°C] | 80
Air volume per cycle [cm³] | 3.6
Weight [kg] | 0.15

*All data measured at 6 bar

**Technical Data**

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Mounting groove for magnetic field sensor
6. Groove for base plate
7. Air connection (retract)
8. Air connection (extend)
9. Air connection, alternative (retract)
10. Air connection, alternative (extend)
LINEAR RAIL SLIDES
LS10-50

PRODUCT SPECIFICATIONS

**Time diagram**
Travel time vs. extension load

**Forces and moments**
Max allowable static forces and moments on face A.

\[
\begin{align*}
Ma [Nm] & = 3.2 \\
Mb [Nm] & = 3.2 \\
Mc [Nm] & = 5.1
\end{align*}
\]

**Load diagram**
Deflection under load vs. the stroke

**RECOMMENDED ACCESSORIES**

- **Flow Control Valves** - with Swivel joint
  - DRV3X4

- **Magnetic field sensor**
  - Straight Cable 5 m
  - MFS204KHC

- **Adapter plate**
  - APLS10G

- **Plug-in connector Angled Cable 5 m - Socket M8 (female)**
  - KAW500

- **Plug-in connector Straight Cable 5 m - Socket M8 (female)**
  - KAG500

- **Plug-in connector customizable Straight - Connector M8**
  - S8-G-3

- **Plug-in connector customizable Straight - Connector M12**
  - S12-G-3

- **Pressure Safety Valve**
  - DSV1-8

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS10-50</td>
<td></td>
</tr>
<tr>
<td>Stroke [mm]</td>
<td>50</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>40</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>30</td>
</tr>
<tr>
<td>Piston diameter [mm]</td>
<td>20</td>
</tr>
<tr>
<td>Guide rail size [mm]</td>
<td>7</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>7.2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.2</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Mounting groove for magnetic field sensor
6. Groove for base plate
7. Air connection (retract)
8. Air connection (extend)
9. Air connection, alternative (retract)
10. Air connection, alternative (extend)

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
PRODUCT SPECIFICATIONS

Time diagram
Travel time vs the extension load

Forces and moments
Max allowable static forces and moments on face A.

Load diagram
Deflection under load vs the stroke

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVMSX4

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Adapter plate
APLS16G

Plug in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug in connector customiz- able Straight - Connector M12
S12-G-3

Pressure Safety Valve
DSV1-8

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
## Technical Data

<table>
<thead>
<tr>
<th></th>
<th>LS16-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>25</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>100</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>85</td>
</tr>
<tr>
<td>Piston diameter [mm]</td>
<td>16</td>
</tr>
<tr>
<td>Guide rail size [mm]</td>
<td>9</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>9.6</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.25</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Fixing linear cylinder
1

### Energy supply
2

### Fixing application
3

### Stop screw for stroke limitation
5

### Mounting groove for magnetic field sensor
6

### Groove for base plate
A

### Air connection (retract)
B

### Air connection (extend)
K

### Air connection, alternative (retract)
L

### Air connection, alternative (extend)

---

Order no. LS16-25

Stroke [mm] 25
Pressure force max. [N] 100
Retraction force [N] 85
Piston diameter [mm] 16
Guide rail size [mm] 9
Operating temperature min. [°C] 5
Operating temperature max. [°C] 80
Air volume per cycle [cm³] 9.6
Weight [kg] 0.25

*All data measured at 6 bar
**PRODUCT SPECIFICATIONS**

**Time diagram**

Travel time vs the extension load:

<table>
<thead>
<tr>
<th>Load (N)</th>
<th>Travel Time (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.08</td>
<td>0</td>
</tr>
<tr>
<td>0.12</td>
<td>0.04</td>
</tr>
<tr>
<td>0.16</td>
<td>0.08</td>
</tr>
<tr>
<td>0.2</td>
<td>0.12</td>
</tr>
</tbody>
</table>

**Forces and moments**

Max allowable static forces and moments on face A:

- \( M_a \text{ [Nm]} = 6.4 \)
- \( M_b \text{ [Nm]} = 6.4 \)
- \( M_c \text{ [Nm]} = 9.6 \)

**Load diagram**

Deflection under load vs the stroke:

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>X (mm)</th>
<th>Y (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>20</td>
<td>0.04</td>
<td>0.08</td>
</tr>
<tr>
<td>30</td>
<td>0.06</td>
<td>0.12</td>
</tr>
<tr>
<td>40</td>
<td>0.08</td>
<td>0.16</td>
</tr>
</tbody>
</table>

**RECOMMENDED ACCESSORIES**

- **Flow Control Valves - with Swivel joint**
  - DRVMSX4

- **Magnetic field sensor**
  - Straight Cable 0.3 m - Connector MB
  - MFS204SKHC

- **Adapter plate**
  - APLS16G

- **Plug in connector**
  - Straight Cable 5m - Socket MB (female)
  - DRVM5X4 MFS204SKHC APLS16G KAW500 KAG500
  - PLUG-IN CONNECTOR CUSTOMIZABLE STRAIGHT - CONNECTOR M12
  - 512-G-3

- **Pressure Safety Valve**
  - DSV1-8
## Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LS16-50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>50</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>100</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>85</td>
</tr>
<tr>
<td>Piston diameter [mm]</td>
<td>16</td>
</tr>
<tr>
<td>Guide rail size [mm]</td>
<td>9</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>19.2</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Fixing linear cylinder

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Mounting groove for magnetic field sensor
6. Groove for base plate
7. Air connection (retract)
8. Air connection (extend)
9. Air connection, alternative (retract)
10. Air connection, alternative (extend)

---

*www.zimmer-group.com*
LINEAR RAIL SLIDES
SERIES LSF

PRODUCT ADVANTAGES

- Precise profile guide
  The linear guide with ball bearing circulation and scrapers provides high precision and rigidity

- Dampened end position
  By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application

- Flat structure
  Reduces the interference contours for your application

THE BEST PRODUCT FOR YOUR APPLICATION

- Our products love the challenge!
  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
  Find the best product for your specific use:
  www.zimmer-group.com
**BENEFITS IN DETAIL**

1. Patented, hydraulic shock absorber
   - adjustable end position damping
   - included in scope of delivery
2. Stroke limiting screw
3. Mounting and positioning
   - possible from several sides
4. Robust, lightweight and extremely flat structure housing
   - hard coated aluminium alloy
5. Mounting groove for magnetic field sensor
   - integrated, space saving position sensing
6. Drive
   - double-acting pneumatic cylinder
7. Linear guide with recirculating ball and wiper
   - dual linear guidance for high forces and moments capacity
8. Intake flange
   - simple application connection

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**

All information just a click away at: www.zimmer-group.com

Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.

Quick, clear and always up-to-date.
LINEAR RAIL SLIDES
LSF25-50

PRODUCT SPECIFICATIONS

Time diagram
Travel time vs the extension load

Forces and moments
Max allowable static forces and moments on face A.

<table>
<thead>
<tr>
<th>Ma [Nm]</th>
<th>Mb [Nm]</th>
<th>Mc [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
<td>40</td>
</tr>
</tbody>
</table>

Load diagram
Deflection under load vs the stroke

Load diagram
Deflection under load vs the stroke

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVMSX4

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204BKHC

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Mounting block
KB8

Switch cam + screws
SN09

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAI500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Shock Absorbers
M12X1S

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Data, Drawings, 3-D Models, Operating Instructions
Order no. | LSF25-50
---|---
Stroke [mm] | 50
Pressure force max. [N] | 265
Retraction force [N] | 220
Piston diameter [mm] | 25
Guide rail size [mm] | 12
Operating temperature min. [°C] | 5
Operating temperature max. [°C] | 80
Air volume per cycle [cm³] | 45
Weight [kg] | 1

*All data measured at 6 bar

<table>
<thead>
<tr>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing linear cylinder</td>
</tr>
<tr>
<td>Energy supply</td>
</tr>
<tr>
<td>Fixing application</td>
</tr>
<tr>
<td>Lubrication nipple</td>
</tr>
<tr>
<td>Stop screw for stroke limitation</td>
</tr>
<tr>
<td>Mounting groove for magnetic field sensor</td>
</tr>
<tr>
<td>Fixing for mounting block</td>
</tr>
<tr>
<td>Intake for shock absorbers</td>
</tr>
<tr>
<td>Fixing for switch cam</td>
</tr>
<tr>
<td>Air connection (retract)</td>
</tr>
<tr>
<td>Air connection (extend)</td>
</tr>
<tr>
<td>Air connection, alternative (retract)</td>
</tr>
<tr>
<td>Air connection, alternative (extend)</td>
</tr>
</tbody>
</table>

Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com
PRODUCT SPECIFICATIONS

Time diagram
Travel time vs the extension load

Forces and moments
Max allowable static forces and moments on face A.

<table>
<thead>
<tr>
<th>Force (Nm)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ma</td>
<td>100</td>
</tr>
<tr>
<td>Mb</td>
<td>100</td>
</tr>
<tr>
<td>Mc</td>
<td>40</td>
</tr>
</tbody>
</table>

Load diagram
Deflection under load vs the stroke

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRVMSX4

Magnetic field sensor
Magnetic field sensor
MFS204KHC
MFS204BKH

Inductive proximity switch
Inductive proximity switch
NJ8-E2
NJ8-E2S

Mounting block
Switch cam + screws
Plug-in connector Angled Cable 5m - Socket M8 (female)
Plug-in connector Straight Cable 5m - Socket M8 (female)
Shock Absorbers
KB8
SN09
KAIN500
KAG500
M12X1S
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LSF25-100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>100</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>265</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>220</td>
</tr>
<tr>
<td>Piston diameter [mm]</td>
<td>25</td>
</tr>
<tr>
<td>Guide rail size [mm]</td>
<td>12</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>90</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

1. Fixing linear cylinder  
2. Energy supply  
3. Fixing application  
4. Lubrication nipple  
5. Stop screw for stroke limitation  
6. Mounting groove for magnetic field sensor  
7. Fixing for mounting block  
8. Intake for shock absorbers  
9. Air connection (retract)  
10. Air connection (extend)  
11. Air connection, alternative (retract)  
12. Air connection, alternative (extend)
LINEAR RAIL SLIDES
SERIES LSX

PRODUCT ADVANTAGES

- **Precise double rail profile guide**
The linear guide with ball bearing circulation and scrapers provides high precision and rigidity

- **Dampened end position**
By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application

- **Failure-free continuous operation**
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

THE BEST PRODUCT FOR YOUR APPLICATION

- **Our products love the challenge!**
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Linear guide with recirculating ball and wiper**
   - two way linear guide for forces and moments capacity
2. **Patented, hydraulic shock absorber**
   - adjustable end position damping
   - included in scope of delivery
3. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning
4. **Energy supply**
   - possible from several sides
5. **Mounting groove for magnetic field sensor**
   - integrated, space saving position sensing
6. **Robust, lightweight housing**
   - hard coated aluminium alloy
7. **Drive**
   - double-acting pneumatic cylinder
8. **Intake flange**
   - quick and cost-effective positioning of adapter plates: Accessory, Art. No. AP...G and AP...V

**FURTHER INFORMATION IS AVAILABLE ONLINE**

- [Technical Information](#)
  - All information just a click away at: [www.zimmer-group.com](http://www.zimmer-group.com)
  - Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
  - Quick, clear and always up-to-date.
**PRODUCT SPECIFICATIONS**

**Time diagram**

- Travel time vs. the extension load

**Forces and moments**

Max allowable static forces and moments on face A.

<table>
<thead>
<tr>
<th>Force</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Ma$</td>
<td>55 Nm</td>
</tr>
<tr>
<td>$Mb$</td>
<td>55 Nm</td>
</tr>
<tr>
<td>$Mc$</td>
<td>55 Nm</td>
</tr>
</tbody>
</table>

**Load diagram**

- Deflection under load vs. the stroke

---

**RECOMMENDED ACCESSORIES**

- Flow Control Valves - with Swivel joint
  - DRV1-8X6
- Magnetic field sensor Straight Cable 5 m
  - MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8
  - MFS204BKH
- Shock Absorbers
  - M12X1S
- Adapter plate
  - APLSX25V
- Adapter plate
  - APLSX25G
- Plug-in connector Angled Cable 5m - Socket M8 (female)
  - KAW500
- Plug-in connector Straight Cable 5m - Socket M8 (female)
  - KAG500
- Plug-in connector customizable Straight - Connector M8
  - SS-G-3
- Plug-in connector customizable Straight - Connector M12
  - S12-G-3
Order no. | LSX25-50
---|---
Stroke [mm] | 50
Pressure force max. [N] | 265
Retraction force [N] | 220
Recommended handling weight [kg] | 15
Piston diameter [mm] | 25
Guide rail size [mm] | 16
Operating temperature min. [°C] | 5
Operating temperature max. [°C] | 80
Air volume per cycle [cm³] | 45
Weight [kg] | 1

*All data measured at 6 bar

Technical Data*

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Mounting groove for magnetic field sensor
6. Groove for base plate
7. Intake for shock absorbers
8. Through hole for shock absorber clamping

A. Air connection (retract)
B. Air connection (extend)
C. Air connection, alternative (retract)
D. Air connection, alternative (extend)
LINEAR RAIL SLIDES
LSX25-100

PRODUCT SPECIFICATIONS

Time diagram

Travel time vs the extension load

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Without Shock Absorber</th>
<th>With Shock Absorber</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>1</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>2</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>3</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>4</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>5</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>6</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>7</td>
<td>0.8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Forces and moments

Max allowable static forces and moments on face A.

<table>
<thead>
<tr>
<th>Force/Moment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mb [Nm]</td>
<td>55</td>
</tr>
<tr>
<td>Mc [Nm]</td>
<td>55</td>
</tr>
</tbody>
</table>

Load diagram

Deflection under load vs the stroke

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>Fx</th>
<th>Fy</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 30</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>30 to 60</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>60 to 90</td>
<td>0.5</td>
<td>0.6</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Magnetic field sensor
MFS204KHC
MFS204BKHCM

Shocks Absorbers
M12X1S

Adapter plate
APLSX25G
APLSX25V

Adapter plate Plug-in connector Angled Cable, 5m - Connector M8
KAW500

Plug-in connector Straight Cable, 0.3m - Connector M8
KAG500

Plug-in connector customisable Straight - Connector M8
S8-G-3

Plug-in connector customisable Straight - Connector M12
S12-G-3
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>LSX25-100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke [mm]</td>
<td>100</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>265</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>220</td>
</tr>
<tr>
<td>Recommended handling weight [kg]</td>
<td>15</td>
</tr>
<tr>
<td>Piston diameter [mm]</td>
<td>25</td>
</tr>
<tr>
<td>Guide rail size [mm]</td>
<td>16</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>90</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram of LSX25-100 linear cylinder](image_url)

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Stop screw for stroke limitation
5. Mounting groove for magnetic field sensor
6. Intake for shock absorbers
7. Through hole for shock absorber clamping
8. Air connection (retract)
9. Air connection (extend)
10. Air connection, alternative (retract)
11. Air connection, alternative (extend)

---

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LINEAR RAIL SLIDES
LSX25-200

PRODUCT SPECIFICATIONS

Time diagram

Forces and moments
Max allowable static forces and moments on face A.

<table>
<thead>
<tr>
<th>Mb [Nm]</th>
<th>55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mc [Nm]</td>
<td>55</td>
</tr>
<tr>
<td>Ma [Nm]</td>
<td>55</td>
</tr>
</tbody>
</table>

Load diagram

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS2048KHC

Shock Absorbers
M12X1S

Adapter plate
APLSX25V

Adapter plate
APLSX25G

Plug in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug in connector customizable Straight - Connector M8
SS-G-3

Plug in connector customizable Straight - Connector M12
S12-G-3
Order no.  
| LSX25-200 |
|------------------|------------------|
| Stroke [mm]       | 200              |
| Pressure force max. [N] | 265              |
| Retraction force [N]    | 220              |
| Recommended handling weight [kg] | 15               |
| Piston diameter [mm]    | 25               |
| Guide rail size [mm]    | 16               |
| Operating temp min. [°C] | 5                |
| Operating temp max. [°C] | 80               |
| Air volume per cycle [cm³] | 180             |
| Weight [kg]       | 1.9              |

*All data measured at 6 bar*
LINEAR RAIL SLIDES
LSX40-100

► PRODUCT SPECIFICATIONS

Time diagram
Travel time vs the extension load

Forces and moments
Max allowable static forces and moments on face A.

Load diagram
Deflection under load vs the stroke

► RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204KHC

Shock Absorbers
M20X1.5S

Adapter plate
APLSX40V

Adapter plate
APLSX40G

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector customisable Straight - Connector M8
SS-G-3

Plug-in connector customisable Straight - Connector M12
S12-G-3

www.zimmer-group.com ► Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
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<th>Order no.</th>
<th>LSX40-100</th>
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<tbody>
<tr>
<td>Stroke [mm]</td>
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<tr>
<td>Pressure force max. [N]</td>
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<tr>
<td>Retraction force [N]</td>
<td>680</td>
</tr>
<tr>
<td>Recommended handling weight [kg]</td>
<td>40</td>
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<tr>
<td>Piston diameter [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Guide rail size [mm]</td>
<td>30</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>235</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>3.2</td>
</tr>
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</table>

*All data measured at 6 bar*
LINEAR RAIL SLIDES
LSX40-200

PRODUCT SPECIFICATIONS

Time diagram
Travel time vs the extension load

Forces and moments
Max allowable static forces and moments on face A.

| Ma [Nm] | 200 |
| Mb [Nm] | 200 |
| Mc [Nm] | 200 |

Load diagram
Deflection under load vs the stroke

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0,3 m - Connector M8
MFS204KHC

Shock Absorbers
M20X1.5S

Adapter plate
APLSX40V

Adapter plate
APLSX40G

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Plug-in connector Straight Cable 5m - Socket M8 (female)
KAG500

Plug-in connector customisable Straight - Connector M8
S8-G-3

Plug-in connector customisable Straight - Connector M12
S12-G-3

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
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<tr>
<td>Retraction force [N]</td>
<td>680</td>
</tr>
<tr>
<td>Recommended handling weight [kg]</td>
<td>40</td>
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<tr>
<td>Piston diameter [mm]</td>
<td>40</td>
</tr>
<tr>
<td>Guide rail size [mm]</td>
<td>30</td>
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<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>235</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>4.4</td>
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</table>

*All data measured at 6 bar*
LIFTING CYLINDERS
OVERVIEW OF SERIES
| PNEUMATIC | Series HZ | 758 |

Overview of Series / Lifting Cylinders

Data, Drawings, 3-D Models, Operating Instructions  www.zimmer-group.com
LIFTING CYLINDERS
SERIES HZ

PRODUCT ADVANTAGES

► Hoseless air passage
Eliminates undefined interference contours and wear-prone hoses and increases the safety of your application in the process

► Dampened end position
By using PowerStop shock absorbers, you can gently move up to the end positions, increasing the process reliability and durability of your application

► Very robust
Two ground and hard chrome-plated guide rods guarantee a secure process sequence with their rigidity and long service life

THE BEST PRODUCT FOR YOUR APPLICATION

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

www.zimmer-group.com  ► Data, Drawings, 3-D Models, Operating Instructions
 BENEFITS IN DETAIL

1. Integrated air feed-through
   - for hoseless air transfer
2. Energy supply
   - possible from several sides
3. Mounting and positioning
   - mounting possible from several sides for versatile positioning
4. Mounting block
   - mounting for inductive proximity switch
5. Drive
   - double-acting pneumatic cylinder
6. Patented, hydraulic shock absorber
   - adjustable end position damping
7. Intake flange
   - for fixing to the customer specific application
8. Two guide rods
   - high forces and moments capacity

 FURTHER INFORMATION IS AVAILABLE ONLINE

► Technical Information
All information just a click away at: www.zimmer-group.com
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
Quick, clear and always up-to-date.

Data, Drawings, 3-D Models, Operating Instructions   www.zimmer-group.com
LIFTING CYLINDERS
INSTALLATION SIZE HZ40

PRODUCT SPECIFICATIONS

Forces and moments
Max allowable static forces and moments.

INCLUDED IN DELIVERY

Mounting block
KB8-28
Shock Absorbers
M14X1.5S
Stop sleeve
DST01491

RECOMMENDED ACCESSORIES

Flow Control Valves - with Swivel joint
DRV1-8X6
Inductive proximity switch - Cable 5 m
NJ8-E2
Inductive proximity switch - Connector M8
NJ8-E2S
Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500
Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500
Plug in connector customiz- able Straight - Connector M6
S8-G-3
Plug in connector customiz- able Straight - Connector M12
S12-G-3
Pressure Safety Valve
DSV1-8
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>HZ40-50D2</td>
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<tr>
<td>Stroke [mm]</td>
<td>50</td>
</tr>
<tr>
<td>Pressure force max. [N]</td>
<td>720</td>
</tr>
<tr>
<td>Retraction force [N]</td>
<td>600</td>
</tr>
<tr>
<td>Air feedthrough (Quantity)</td>
<td>2</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>116</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>2</td>
</tr>
<tr>
<td>Deviation D for Mr 5 N [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Deviation D for Mr 10 N [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Deviation D for Mr 15 N [mm]</td>
<td>0.5</td>
</tr>
<tr>
<td>Deviation D for Mr 70 N [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Deflection A for My 60 N [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Deflection A for My 100 N [mm]</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Technical Data

1. Fixing linear cylinder
2. Energy supply
3. Fixing application
4. Fixing for mounting block
5. Integrated air feed-through
6. Shock absorber
7. Stop sleeve
8. Air connection (retract)
9. Air connection (extend)
10. Air connection, alternative (retract)
11. Air connection, alternative (extend)

---

**Order no.**

<table>
<thead>
<tr>
<th>Stroke [mm]</th>
<th>Pressure force max. [N]</th>
<th>Retraction force [N]</th>
<th>Air feedthrough (Quantity)</th>
<th>Air volume per cycle [cm³]</th>
<th>Operating temperature min. [°C]</th>
<th>Operating temperature max. [°C]</th>
<th>Weight [kg]</th>
<th>Deviation D for Mr 5 N [mm]</th>
<th>Deviation D for Mr 10 N [mm]</th>
<th>Deviation D for Mr 15 N [mm]</th>
<th>Deviation D for Mr 70 N [mm]</th>
<th>Deflection A for My 60 N [mm]</th>
<th>Deflection A for My 100 N [mm]</th>
<th>All data measured at 6 bar</th>
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</thead>
<tbody>
<tr>
<td>50</td>
<td>720</td>
<td>600</td>
<td>2</td>
<td>116</td>
<td>5</td>
<td>80</td>
<td>2</td>
<td>0.1</td>
<td>0.15</td>
<td>0.15</td>
<td>0.05</td>
<td>0.1</td>
<td>0.1</td>
<td>All data measured at 6 bar</td>
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</table>
CUTTING TONGS
OVERVIEW OF SERIES
### PNEUMATIC

<table>
<thead>
<tr>
<th>Series</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZK1000</td>
<td>764</td>
</tr>
<tr>
<td>ZK</td>
<td>776</td>
</tr>
</tbody>
</table>
CUTTING TONGS
SERIES ZK1000

► PRODUCT ADVANTAGES

► Extremely lightweight
This lightweight generally allows the use of a smaller moving axis, reducing the overall costs of the application in the process.

► Integrated magnetic field sensing
One of the few cutting tongs on the market that can have its position queried and transferred to the control system with process reliability.

► Decide for yourself!
Sprue or steel wire: The variety of cutting geometries and materials ensure you always find the correct cuttings.

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. Cutting insert - flexible applicable due to specific cutting geometry
2. Return spring - to open the cuttings
3. Mounting clamp - mounting and positioning of magnetic field sensors
4. Magnetic field sensor - for position sensing
5. Drive - single-acting pneumatic cylinder
6. Housing - hard coated aluminium alloy
7. Mounting and positioning - via fit, thread and lock nut
8. Energy supply

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**

All information just a click away at: www.zimmer-group.com
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.
Quick, clear and always up-to-date.
CUTTING TONGS
INSTALLATION SIZE ZK1030

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES

Angled Fittings - Barb Style Connection
Straight Fittings - Barb Style Connection
Sensor holder
Magnetic field sensor Straight Cable 0,3 m - Connector M8
Magnetic field sensor Straight Cable 5 m
Cutting inserts, see page 774

C093610009
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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<tbody>
<tr>
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<td>ZK1030</td>
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<td>Stroke per jaw [&quot;]</td>
<td>4.25</td>
</tr>
<tr>
<td>Gripping moment in closing [Nm]</td>
<td>14</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.01</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>2</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Possible cutting diameters
- possible cut-Ø max. hard-plastic [mm] | 0.3 |
- possible cut-Ø max. piano wire [mm] | 2 |
- possible cut-Ø max. plastics [mm] | 1 |
- possible cut-Ø max. copper [mm] | 0.5 |

*All data measured at 6 bar

---

![Diagram showing installation size ZK1030, Cutting Tongs, pneumatic, Cutting Tongs, Data, Drawings, 3-D Models, Operating Instructions](www.zimmer-group.com)
CUTTING TONGS
INSTALLATION SIZE ZK1036

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES

Angled Fittings - Quick Connect Style
WVM5

Straight Fittings - Quick Connect Style
GVM5

Sensor holder
KHD36

Magnetic field sensor
MFS204SKHC

Magnetic field sensor
MFS204KHC

Cutting inserts, see page 774
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>ZK1036</th>
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<tbody>
<tr>
<td>Stroke per jaw [*]</td>
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<tr>
<td>Gripping moment in closing [Nm]</td>
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<td>Closing time [s]</td>
<td>0.04</td>
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<td>Opening time [s]</td>
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<tr>
<td>Operating pressure min. [bar]</td>
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<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>9.2</td>
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<tr>
<td>Weight [kg]</td>
<td>0.13</td>
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### Possible cutting diameters

<table>
<thead>
<tr>
<th>Material</th>
<th>Diameter [mm]</th>
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<tbody>
<tr>
<td>Hard plastic</td>
<td>2.6</td>
</tr>
<tr>
<td>Piano wire</td>
<td>0.5</td>
</tr>
<tr>
<td>Plastics</td>
<td>4</td>
</tr>
<tr>
<td>Copper</td>
<td>1.6</td>
</tr>
<tr>
<td>Steel</td>
<td>1</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Data**

- **Fastening of cutting tongs**
- **Energy supply**
- **Cutting insert mounting**

---

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)
CUTTING TONGS
INSTALLATION SIZE ZK1045

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES

Angled Fittings - Quick Connect Style
WV1-8X6

Straight Fittings - Quick Connect Style
GV1-8X6

Sensor holder
KHD45

Magnetic field sensor
Straight Cable 0,3 m - Connector M
MFS204SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Cutting inserts, see page 774

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
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<td></td>
<td>Closing time [s]</td>
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<td>Opening time [s]</td>
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<td></td>
<td>Operating pressure min. [bar]</td>
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<td>Operating pressure max. [bar]</td>
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<td></td>
<td>Air volume per cycle [cm³]</td>
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<tr>
<td></td>
<td>Weight [kg]</td>
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<table>
<thead>
<tr>
<th>Possible cutting diameters</th>
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</thead>
<tbody>
<tr>
<td>possible cut-Ø max. hard-plastic [mm]</td>
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</tr>
<tr>
<td>possible cut-Ø max. piano wire [mm]</td>
<td>1</td>
</tr>
<tr>
<td>possible cut-Ø max. plastics [mm]</td>
<td>7</td>
</tr>
<tr>
<td>possible cut-Ø max. copper [mm]</td>
<td>2.6</td>
</tr>
<tr>
<td>possible cut-Ø max. steel [mm]</td>
<td>2</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar
CUTTING TONGS
INSTALLATION SIZE ZK1065

PRODUCT SPECIFICATIONS

INCLUDED IN DELIVERY

RECOMMENDED ACCESSORIES

Angled Fittings - Quick Connect Style
WV1-8X6

Straight Fittings - Quick Connect Style
GV1-8X6

Sensor holder
KHD65

Magnetic field sensor
MFS204SKHC

Magnetic field sensor
MFS204KHC

Cutting inserts, see page 774

www.zimmer-group.com  Data, Drawings, 3-D Models, Operating Instructions
### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>ZK1065</th>
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</thead>
<tbody>
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<td>Stroke per jaw [&quot;]</td>
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</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>6</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>130</td>
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<tr>
<td>Weight [kg]</td>
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</tbody>
</table>

#### Possible cutting diameters

| possible cut-Ø max. hard-plastic [mm] | 8 |
| possible cut-Ø max. piano wire [mm] | 11 |
| possible cut-Ø max. plastics [mm] | 6 |
| possible cut-Ø max. copper [mm] | 4 |

* All data measured at 6 bar

---

### Installation size ZK1065 / Cutting Tongs / pneumatic / Cutting Tongs

Data, Drawings, 3-D Models, Operating Instructions  
[www.zimmer-group.com](http://www.zimmer-group.com)
# CUTTING TONGS
## ZK1000 SERIES CUTTING INSERTS

### CUTTING INSERTS FOR ZK1030

<table>
<thead>
<tr>
<th>Cutting Insert 15° for Plastics</th>
<th>Cutting Insert 40° For Plastics</th>
<th>Cutting Insert 0° For Plastics</th>
<th>Cutting Tong For Plastics</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK1030-01</td>
<td>BK1030-02</td>
<td>BK1030-03</td>
<td>BK1030-04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cutting Insert 0° For Steel</th>
<th>Cutting Insert 25° For Steel</th>
<th>Carbide Cutting Insert 0° For Steel</th>
<th>Carbide Cutting Insert 25° For Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK1030-05</td>
<td>BK1030-06</td>
<td>BK1030-07</td>
<td>BK1030-08</td>
</tr>
</tbody>
</table>

### CUTTING INSERTS FOR ZK1036

<table>
<thead>
<tr>
<th>Cutting Insert 25° For Plastics</th>
<th>Cutting Insert 40° For Plastics</th>
<th>Cutting Insert 0° For Plastics</th>
<th>Cutting Tong For Plastics</th>
</tr>
</thead>
<tbody>
<tr>
<td>BK1036-01</td>
<td>BK1036-02</td>
<td>BK1036-03</td>
<td>BK1036-04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cutting Insert 0° For Steel</th>
<th>Cutting Insert 25° For Steel</th>
<th>Carbide Cutting Insert 0° For Steel</th>
<th>Carbide Cutting Insert 25° For Steel</th>
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</thead>
<tbody>
<tr>
<td>BK1036-05</td>
<td>BK1036-06</td>
<td>BK1036-07</td>
<td>BK1036-08</td>
</tr>
</tbody>
</table>
CUTTING INSERTS FOR ZK1045

Cutting Insert 15° for plastics  
BK1045-01

Cutting Insert 40° for plastics  
BK1045-02

Cutting Insert 0° for plastics  
BK1045-03

Cutting Tong for plastics  
BK1045-04

Cutting Insert 0° for Steel  
BK1045-05

Cutting Insert 30° for Steel  
BK1045-06

Carbide Cutting Insert 0° for Steel  
BK1045-07

Carbide Cutting Insert 30° for Steel  
BK1045-08

CUTTING INSERTS FOR ZK1065

Cutting Insert 15° for plastics  
BK1065-01

Cutting Insert 0° for plastics  
BK1065-02

Cutting Insert 30° for plastics  
BK1065-03

Cutting Tong for plastics  
BK1065-04

Cutting Insert 0° for Steel  
BK1065-05

Cutting Insert 30° for Steel  
BK1065-06

Carbide Cutting Insert 0° for Steel  
BK1065-07

Carbide Cutting Insert 40° for Steel  
BK1065-08
CUTTING TONGS
SERIES ZK

► PRODUCT ADVANTAGES

► Flat structure
Reduces the interference contours and enables simple integration into your machine design

► Decide for yourself!
The gripper jaw holder provides the option to adapt standard cutting, gripper jaws or your own design

► Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 5 million maintenance-free gripping cycles

► THE BEST PRODUCT FOR YOUR APPLICATION

► Our products love the challenge!
Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:
www.zimmer-group.com
**BENEFITS IN DETAIL**

1. **Switch cam**
   - for position sensing
2. **Mounting**
   - for individual jaws, knives, chucks and similar
3. **Integrated spring**
   - supports jaw return (ZK33)
4. **Robust, lightweight housing**
   - hard coated aluminium alloy
5. **Force transfer**
   - via wedge and rollers
6. **Mounting and positioning**
   - mounting possible from several sides for versatile positioning
7. **Energy supply**
   - possible from several sides
8. **Drive**
   - double-acting pneumatic cylinder

**FURTHER INFORMATION IS AVAILABLE ONLINE**

**Technical Information**

All information just a click away at: www.zimmer-group.com

Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.

Quick, clear and always up-to-date.
CUTTING TONGS
INSTALLATION SIZE ZK22

PRODUCT SPECIFICATIONS

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

| Mr [Nm] | 20 |
| My [Nm] | 30 |
| Fa [N]  | 600 |

- Gripping force diagram

| Fa [N]  | 600 |

- RECOMMENDED ACCESSORIES

- Universal Jaw Steel
  UB22

- Cutter mounting set
  BK22

- Cutter set with double ground cutting edge
  BK22-1

- Cutter set with single ground cutting edge
  BK22-2

- Cutter set with shearing blades
  BK22-3

- Mounting block
  KB3

- Inductive proximity switch
  Cable 5 m
  NJ3-E2

- Inductive Proximity Switch
  Cable 1.3 m - Connector M8
  NJ3-E2SK

- Angled Fittings - Quick Connect Style
  WVM5

- Straight Fittings - Quick Connect Style
  GVM5

www.zimmer-group.com / Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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</thead>
<tbody>
<tr>
<td>Stroke per jaw [*]</td>
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<tr>
<td>Gripping moment in closing [Nm] **</td>
<td>54</td>
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<tr>
<td>Gripping force in closing [N]</td>
<td>3600</td>
</tr>
<tr>
<td>Closing time [s]</td>
<td>0.15</td>
</tr>
<tr>
<td>Opening time [s]</td>
<td>0.15</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
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<tr>
<td>Air volume per cycle [cm³]</td>
<td>10</td>
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<tr>
<td>Weight [kg]</td>
<td>0.79</td>
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</table>

*All data measured at 6 bar
**measured at 2° opening angle

### Technical Data

- **Gripper attachment**
- **Energy supply**
- **Cutting insert mounting**
- **Fixing for mounting block**
- **Adapter**
- **Gripper**
- **Air connection (close)**
- **Air connection (open)**
- **Air connection, alternative (close)**
- **Air connection, alternative (open)**

### Hoseless air feed-through

**Installation size ZK22 / Cutting Tongs / pneumatic / Cutting Tongs**

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com
PRODUCT SPECIFICATIONS

Gripping moment diagram

[Fm] Gripping force as a function of opening angle.

Forces and moments

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

Mr [Nm] 26
My [Nm] 40
Fa [N] 720

Gripping force diagram

Gripping force as a function of finger length. (measured at 2° opening angle).

RECOMMENDED ACCESSORIES

Universal Jaw Steel
UB22

Cutter mounting set
BK22

Cutter set with double ground cutting edge
BK22-1

Cutter set with single ground cutting edge
BK22-2

Cutter set with shearing blades
BK22-3

Mounting block
KB3

Inductive proximity switch - Cable 5 m
NJ3-E2

Inductive Proximity Switch Cable 3.3 m - Connector M8
NJ3-E2SK

Angled Fittings - Quick Connect Style
WVM5

Straight Fittings - Quick Connect Style
GVM5

CUTTING TONGS
INSTALLATION SIZE ZK33

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
Order no. ZK33

<table>
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<td><strong>ZK33</strong></td>
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<td>Stroke per jaw [*]</td>
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<tr>
<td>Gripping moment in closing [Nm] **</td>
</tr>
<tr>
<td>Gripping force in closing [N]</td>
</tr>
<tr>
<td>Closing time [s]</td>
</tr>
<tr>
<td>Opening time [s]</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
</tr>
<tr>
<td>Weight [kg]</td>
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</table>

*All data measured at 6 bar
**measured at 2° opening angle
SEPARATORS
OVERVIEW OF SERIES
### PNEUMATIC

<table>
<thead>
<tr>
<th>Series</th>
<th></th>
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<tbody>
<tr>
<td>VEG</td>
<td>784</td>
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<tr>
<td>VE</td>
<td>796</td>
</tr>
</tbody>
</table>
**SEPARATORS**

**SERIES VEG**

► **PRODUCT ADVANTAGES**

► **Hardened stainless steel guide**
   This guide is robust, reliable and durable: Exactly what you need for your application!

► **Decide for yourself!**
   Sensing via magnetic field sensors or inductive proximity switches: Unlike the benchmark, you are free to choose!

► **Failure-free continuous operation**
   Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

► **THE BEST PRODUCT FOR YOUR APPLICATION**

► **Our products love the challenge!**
   Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
   Find the best product for your specific use:
   www.zimmer-group.com
#### BENEFITS IN DETAIL

1. **Tapped rod**  
   - hardened steel

2. **Mounting**  
   - individual separator finger mounting

3. **Square guide**  
   - rugged, high forces and moments capacity

4. **Mounting and positioning**  
   - mounting possible from several sides for versatile positioning

5. **Drive**  
   - double-acting pneumatic cylinder

6. **Energy supply**

7. **Sensing**  
   - groove for positioning of the magnetic field sensor

8. **Permanent magnet**  
   - installed in piston area

---

#### FURTHER INFORMATION IS AVAILABLE ONLINE

- **Technical Information**
  
  All information just a click away at: [www.zimmer-group.com](http://www.zimmer-group.com)

  Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.

  Quick, clear and always up-to-date.
SEPARATOR
SIZE VEG10

PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

<table>
<thead>
<tr>
<th>Mr [Nm]</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [Nm]</td>
<td>3</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>3</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>75</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Quick Connect Style
WVM5

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KA0500

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Mounting block
KB8-20

www.zimmer-group.com ▶ Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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<tr>
<td>VEG10-B</td>
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<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Stroke per tapped rod [mm]</td>
<td>10</td>
</tr>
<tr>
<td>Force in retract [N]</td>
<td>30</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>40</td>
</tr>
<tr>
<td>Cycle count [s]</td>
<td>0.04</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>1.5</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.075</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

![Diagram with annotations](image-url)
PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

| Mr [Nm] | 5     |
| My [Nm] | 5     |
| Mx [Nm] | 5     |
| Fa [N]  | 100   |

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Quick Connect Style
WVM5

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Mounting block
KB8-20
Order no. | Technical Data*
--- | ---
VEG14-B | **Fixing Separators**
| **Energy supply**
| **Fixing jaw**
| **Integrated slot for magnetic field sensor**
| **Fixing for mounting bloc**
| **Air connection (retract)**
| **Air connection (extend)**

| **Stroke per tapped rod [mm]** | 20 |
| **Force in retract [N]** | 65 |
| **Force in extend [N]** | 80 |
| **Cycle count [s]** | 0.04 |
| **Repetition accuracy +/- [mm]** | 0.05 |
| **Operating pressure min. [bar]** | 3 |
| **Operating pressure max. [bar]** | 8 |
| **Operating temperature min. [°C]** | 5 |
| **Operating temperature max. [°C]** | 80 |
| **Air volume per cycle [cm³]** | 6 |
| **Weight [kg]** | 0.142 |

*All data measured at 6 bar*
PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

| Mr [N·m] | 5 |
| My [N·m] | 5 |
| Mx [N·m] | 5 |
| Fa [N]   | 100 |

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Quick Connect Style
WVM5

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KAG500

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Inductive proximity switch - Cable 5 m
NJB-E2

Inductive proximity switch - Connector M8
NJB-E2S

Mounting block
KB8-20

www.zimmer-group.com
<table>
<thead>
<tr>
<th>Order no.</th>
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<tr>
<td>VEG15-B</td>
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<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Stroke per tapped rod [mm]</td>
<td>40</td>
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<tr>
<td>Force in retract [N]</td>
<td>65</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>80</td>
</tr>
<tr>
<td>Cycle count [s]</td>
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<tr>
<td>Repetition accuracy +/− [mm]</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>11</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.2</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar
PRODUCT SPECIFICATIONS

Forces and moments

Shows static forces and torques that may be present on the plunger

| Mr [Nm] | 9 |
| My [Nm] | 9 |
| Mx [Nm] | 9 |
| Fa [N]  | 180 |

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Quick Connect Style
WVM5

Plug-in connector
Straight Cable 5 m - Socket M8 (female)
KA0500

Plug-in connector
Angled Cable 5 m - Socket M8 (female)
KAW500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Mounting block
KB8-20

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### Technical Data*

<table>
<thead>
<tr>
<th>Order no.</th>
<th>VEG22-B</th>
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</thead>
<tbody>
<tr>
<td>Stroke per tapped rod [mm]</td>
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<tr>
<td>Force in retract [N]</td>
<td>170</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>220</td>
</tr>
<tr>
<td>Cycle count [s]</td>
<td>0.08</td>
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<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
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<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>20</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar
PRODUCT SPECIFICATIONS

**Forces and moments**

Shows static forces and torques that may be present on the plunger

| Mr [Nm] | 9  |
| My [Nm] | 9  |
| Mx [Nm] | 9  |
| Fa [N]  | 180 |

RECOMMENDED ACCESSORIES

- **Magnetic field sensor Angled Cable 5 m**
  - MFS103KHC
- **Magnetic field sensor Angled Cable 0.3 m - Connector M8**
  - MFS103SKHC
- **Magnetic field sensor Straight Cable 5 m**
  - MFS204KHC
- **Magnetic field sensor Straight Cable 0.3 m - Connector M8**
  - MFS204SKHC
- **Straight Fittings - Quick Connect Style**
  - GVM5
- **Angled Fittings - Quick Connect Style**
  - WVM5
- **Plug-in connector Straight Cable 5 m - Socket M8 (female)**
  - KAG500
- **Plug-in connector Angled Cable 5 m - Socket M8 (female)**
  - KAW500
- **Inductive proximity switch - Cable 5 m**
  - NJ8-E2
- **Inductive proximity switch - Connector M8**
  - NJ8-E2S
- **Mounting block**
  - KB8-20

www.zimmer-group.com ➤ Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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<tbody>
<tr>
<td>VEG23-B</td>
<td>Stroke per tapped rod [mm]</td>
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<td>Force in retract [N]</td>
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<td></td>
<td>Force in extend [N]</td>
</tr>
<tr>
<td></td>
<td>Cycle count [s]</td>
</tr>
<tr>
<td></td>
<td>Repetition accuracy +/- [mm]</td>
</tr>
<tr>
<td></td>
<td>Operating pressure min. [bar]</td>
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<tr>
<td></td>
<td>Operating pressure max. [bar]</td>
</tr>
<tr>
<td></td>
<td>Operating temperature min. [°C]</td>
</tr>
<tr>
<td></td>
<td>Operating temperature max. [°C]</td>
</tr>
<tr>
<td></td>
<td>Air volume per cycle [cm³]</td>
</tr>
<tr>
<td></td>
<td>Weight [kg]</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

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

PRODUCT ADVANTAGES

Mechanical forced control
Guarantees process reliability for your application since only one workpiece can be separated and guided through at a time

Decide for yourself!
Sensing via magnetic field sensors or inductive proximity switches: Unlike the benchmark, you are free to choose!

Failure-free continuous operation
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

THE BEST PRODUCT FOR YOUR APPLICATION

SOMMER automatic
BENEFITS IN DETAIL

1. Square guide - rugged, high forces and moments capacity
2. Tapped rod - hardened steel
3. Mounting - individual separator finger mounting
4. Locking - integrated, mechanical locking
5. Energy supply - possible from several sides
6. Drive - two double-acting pneumatic cylinders
7. Permanent magnet - installed in piston area
8. Sensing - groove for positioning of the magnetic field sensor

FURTHER INFORMATION IS AVAILABLE ONLINE

Technical Information
All information just a click away at: www.zimmer-group.com
Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.
SEPARATOR
SIZE VE10

PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

| Mr [N·m] | 3 |
| My [N·m] | 3 |
| Mx [N·m] | 3 |
| Fa [N]   | 75 |

RECOMMENDED ACCESSORIES

- Magnetic field sensor
  Angled Cable 5 m
  MFS103KHC

- Magnetic field sensor
  Angled Cable 0.3 m - Connector M8
  MFS103SKHC

- Magnetic field sensor
  Straight Cable 5 m
  MFS204KHC

- Magnetic field sensor
  Straight Cable 0.3 m - Connector M8
  MFS204SKHC

- Straight Fittings - Quick Connect Style
  GVM5

- Angled Fittings - Quick Connect Style
  WVM5

- Plug-in connector
  Straight Cable 5 m - Socket M8 (female)
  KA0500

- Plug-in connector
  Angled Cable 5 m - Socket M8 (female)
  KAW500

- Inductive proximity switch
  - Cable 5 m
  NJ8-E2

- Inductive proximity switch - Connector M8
  NJ8-E2S

- Mounting block
  KB8-20

www.zimmer-group.com
Data, Drawings, 3-D Models, Operating Instructions
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
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<tr>
<td>Force in retract [N]</td>
<td>30</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>40</td>
</tr>
<tr>
<td>Self limitation</td>
<td>mechanical</td>
</tr>
<tr>
<td>Cycle count [s]</td>
<td>0.04</td>
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<tr>
<td>Repetition accuracy +/− [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>3</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.12</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Fixing Separators**

1. Fixing Separators
2. Energy supply
3. Fixing jaw
4. Integrated slot for magnetic field sensor
5. Fixing for mounting bloc
6. Air connection (left retract/right extend)
7. Air connection (left extend/right retract)

---

<table>
<thead>
<tr>
<th>Installation size VE10 / Separators / pneumatic / Separators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data, Drawings, 3-D Models, Operating Instructions</td>
</tr>
</tbody>
</table>
PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr [Nm]</td>
<td>5</td>
</tr>
<tr>
<td>My [Nm]</td>
<td>5</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>5</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>100</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

- Magnetic field sensor Angled Cable 5 m: MFS103KHC
- Magnetic field sensor Angled Cable 0.3 m - Connector M8: MFS103SKHC
- Magnetic field sensor Straight Cable 5 m: MFS204KHC
- Magnetic field sensor Straight Cable 0.3 m - Connector M8: MFS204SKHC
- Straight Fittings - Quick Connect Style: GVM5
- Angled Fittings - Quick Connect Style: WVM5
- Plug-in connector Straight Cable 5 m - Socket M8 (female): KAG500
- Plug-in connector Angled Cable 5 m - Socket M8 (female): KAW500
- Inductive proximity switch - Cable 5 m: NJ8-E2
- Inductive proximity switch - Connector M8: NJ8-E2S
- Mounting block: KB8-20
## Technical Data*

<table>
<thead>
<tr>
<th></th>
<th>VE14-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per tapped rod [mm]</td>
<td>20</td>
</tr>
<tr>
<td>Force in retract [N]</td>
<td>65</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>80</td>
</tr>
<tr>
<td>Self limitation</td>
<td>mechanical</td>
</tr>
<tr>
<td>Cycle count [s]</td>
<td>0.05</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>11</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Diagram

- **1**: Fixing Separators
- **2**: Energy supply
- **3**: Fixing jaw
- **4**: Integrated slot for magnetic field sensor
- **5**: Fixing for mounting block
- **6**: Adapter
- **7**: Separators
- **A**: Air connection (left retract/right extend)
- **B**: Air connection (left extend/right retract)
- **C**: Air connection alternativ (left retract/right extend)
- **D**: Air connection alternativ (left extend/right retract)

---

- Hoseless air feed-through

---

Data, Drawings, 3-D Models, Operating Instructions  ➤ www.zimmer-group.com
SEPARATOR
SIZE VE15

PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

<table>
<thead>
<tr>
<th>Mr [N(\text{m})]</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>My [N(\text{m})]</td>
<td>5</td>
</tr>
<tr>
<td>Mx [N(\text{m})]</td>
<td>5</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>100</td>
</tr>
</tbody>
</table>

RECOMMENDED ACCESSORIES

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Quick Connect Style
WVM5

Plug-in connector Straight Cable 5 m - Socket M8 (female)
KA0500

Plug-in connector Angled Cable 5 m - Socket M8 (female)
KAW500

Inductive proximity switch - Cable 5 m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Mounting block
KB8-20
Order no.

<table>
<thead>
<tr>
<th>VE15-B</th>
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</thead>
<tbody>
<tr>
<td>Stroke per tapped rod [mm]</td>
</tr>
<tr>
<td>Force in retract [N]</td>
</tr>
<tr>
<td>Force in extend [N]</td>
</tr>
<tr>
<td>Self limitation</td>
</tr>
<tr>
<td>Cycle count [s]</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
</tr>
<tr>
<td>Weight [kg]</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

### Technical Data*

1. Fixing Separators
2. Energy supply
3. Fixing jaw
4. Integrated slot for magnetic field sensor
5. Fixing for mounting block
6. Adapter
7. Separators

**A** Air connection (left retract/right extend)

**B** Air connection (left extend/right retract)

**A** Air connection alternativ (left retract/right extend)

**B** Air connection alternativ (left extend/right retract)

---

*All data measured at 6 bar*
PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

| Mr [Nm] | 9        |
| My [Nm] | 9        |
| Mx [Nm] | 9        |
| Fa [N]  | 180      |

RECOMMENDED ACCESSORIES

Magnetic field sensor Angled Cable 5 m
MFS103KHC

Magnetic field sensor Angled Cable 0.3 m - Connector M8
MFS103SKHC

Magnetic field sensor Straight Cable 5 m
MFS204KHC

Magnetic field sensor Straight Cable 0.3 m - Connector M8
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Quick Connect Style
WVM5

Plug-in connector Straight Cable 5m - Socket M8 (female)
KA0500

Plug-in connector Angled Cable 5m - Socket M8 (female)
KAW500

Inductive proximity switch - Cable 5m
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Mounting block
KB8-20
<table>
<thead>
<tr>
<th>Order no.</th>
<th>VE22-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per tapped rod [mm]</td>
<td>30</td>
</tr>
<tr>
<td>Force in retract [N]</td>
<td>170</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>220</td>
</tr>
<tr>
<td>Self limitation</td>
<td>mechanical</td>
</tr>
<tr>
<td>Cycle count [s]</td>
<td>0.08</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>42</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.915</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

Technical Data*

- Fixing Separators
- Energy supply
- Fixing jaw
- Integrated slot for magnetic field sensor
- Fixing for mounting block
- Adapter
- Separators
- Air connection (left retract/right extend)
- Air connection (left extend/right retract)
- Air connection alternativ (left retract/right extend)
- Air connection alternativ (left extend/right retract)

Hoseless air feed-through

---

Data, Drawings, 3-D Models, Operating Instructions  ➤  www.zimmer-group.com  805
SEPARATOR
SIZE VE23

PRODUCT SPECIFICATIONS

Forces and moments
Shows static forces and torques that may be present on the plunger

| Mr [Nm] | 9 |
| My [Nm] | 9 |
| Mx [Nm] | 9 |
| Fa [N] | 180 |

RECOMMENDED ACCESSORIES

Magnetic field sensor
Angled Cable 5 m
MFS103KHC

Magnetic field sensor
Angled Cable 0.3 m - Connector M6
MFS103SKHC

Magnetic field sensor
Straight Cable 5 m
MFS204KHC

Magnetic field sensor
Straight Cable 0.3 m - Connector M6
MFS204SKHC

Straight Fittings - Quick Connect Style
GVM5

Angled Fittings - Quick Connect Style
WVM5

Plug-in connector
Straight Cable 5 m - Socket M8 (female)
KA0500

Plug-in connector
Angled Cable 5 m - Socket M8 (female)
KAW500

Inductive proximity switch
Connector M8
NJ8-E2

Inductive proximity switch - Connector M8
NJ8-E2S

Mounting block
KB8-20
<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data*</th>
</tr>
</thead>
<tbody>
<tr>
<td>VE23-B</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke per tapped rod [mm]</td>
<td>60</td>
</tr>
<tr>
<td>Force in retract [N]</td>
<td>170</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>220</td>
</tr>
<tr>
<td>Self limitation</td>
<td>mechanical</td>
</tr>
<tr>
<td>Cycle count [s]</td>
<td>0.15</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.05</td>
</tr>
<tr>
<td>Operating pressure min. [bar]</td>
<td>3</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>8</td>
</tr>
<tr>
<td>Operating temperature min. [°C]</td>
<td>5</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>80</td>
</tr>
<tr>
<td>Air volume per cycle [cm³]</td>
<td>83</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*All data measured at 6 bar

---

**Technical Diagram**

- Fixing Separators
- Energy supply
- Fixing jaw
- Integrated slot for magnetic field sensor
- Fixing for mounting block
- Adapter
- Separators
- Air connection (left retract/right extend)
- Air connection (left extend/right retract)
- Air connection alternativ (left retract/right extend)
- Air connection alternativ (left extend/right retract)

---

**Installation size VE23 - Separators / pneumatic / Separators**

**Data, Drawings, 3-D Models, Operating Instructions**

[www.zimmer-group.com](http://www.zimmer-group.com)

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**Additional Information**

- Hoseless air feed-through

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**Notes**

- Compatibility with standard fittings
- High reliability
- Easy maintenance

---

**Contact Information**

- Technical Support
- Sales Representatives
- Local Branches

---

**Regulatory Compliance**

- CE-marked
- ISO 9001 certified
- RoHS compliant
SEPARATORS
OVERVIEW OF SERIES
ELECTRICAL

Series VEE9200
Our products love the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:
Find the best product for your specific use:

www.zimmer-group.com

PRODUCT ADVANTAGES

► 250 cycles per minute
If speed is the key, nothing beats this unit. This lets you increase your component output and lower your unit costs,

► Saving energy with pulse control
You only have to supply current briefly when retracting and extending the plunger. No energy is required at the end positions

► Plug and Play
Reduce your design and programming effort to a minimum with the integrated control system and the 2-position query

THE BEST PRODUCT FOR YOUR APPLICATION

www.zimmer-group.com

► Data, Drawings, 3-D Models, Operating Instructions
**BENEFITS IN DETAIL**

1. **Energy supply**  
   - standardized interface M12 round connector

2. **Drive**  
   - via Pot magnet and coil bobbin according to the coil system principle  
   - energy consumption only at impulse <25 ms

3. **Position sensing**  
   - integrated Hallsensor  
   - positions monitorable

4. **Status control**  
   - optical LED position display

5. **Tapped rod**  
   - Aluminium hardcoated

6. **Mounting and positioning**  
   - mounting possible from several sides for versatile positioning

7. **Robust, lightweight housing**  
   - hard coated aluminium alloy

8. **Mounting**  
   - individual separator finger mounting

**FURTHER INFORMATION IS AVAILABLE ONLINE**

- **Technical Information**  
  All information just a click away at: www.zimmer-group.com  
  Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product.  
  Quick, clear and always up-to-date.
PRODUCT SPECIFICATIONS

Forces and moments

Shows static forces and torques that may be present on the plunger

- $M_r$ [Nm] = 0.3
- $M_y$ [Nm] = 0.3
- $M_x$ [Nm] = 0.3
- $F_a$ [N] = 50

RECOMMENDED ACCESSORIES

- Plug-in Connector Angled Cable 10 m - Female M12: KAW1000B8
- Plug-in Connector Straight Cable 10 m - Female M12: KAG1000B8
- I/O box: see page 839 ZUBBOX9000-01

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

<table>
<thead>
<tr>
<th>Technical Data*</th>
<th>VEE9210</th>
<th>VEE9220</th>
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</thead>
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<td>Permissible unevenness of mounting surface [mm]</td>
<td>&lt;0.02</td>
<td>&lt;0.02</td>
</tr>
<tr>
<td>Fixing for separator / Tightening torque</td>
<td>M3 / 1.5</td>
<td>M3 / 1.5</td>
</tr>
<tr>
<td>Replacement accuracy [mm]</td>
<td>&lt;0.2</td>
<td>&lt;0.2</td>
</tr>
<tr>
<td>Stroke [mm]</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Force in retract [N]</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Force in extend [N]</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Permanent operation cycle count max. [cycle/min]</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Cycle count max. [cycle/min]</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Operating time [ms]</td>
<td>&lt;18</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Repetition accuracy +/- [mm]</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Weight of tappet extension, max. [g]</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Fixing for extension piece / Tightening torque [Nm]</td>
<td>M3 / 1.5</td>
<td>M3 / 1.5</td>
</tr>
<tr>
<td>Pulse time in retract [ms]</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>Pulse time in extend [ms]</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>Debounce time [ms]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Current consumption per pulse max. [A]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Current consumption in a stand-by mode [A]</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP40</td>
<td>IP40</td>
</tr>
<tr>
<td>Certification</td>
<td>CE</td>
<td>CE</td>
</tr>
<tr>
<td>Noise level [dB(A)]</td>
<td>&lt;70</td>
<td>&lt;70</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>10 ... +50</td>
<td>10 ... +50</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.24</td>
<td>0.30</td>
</tr>
</tbody>
</table>

* All data measured at 6 bar
Our products love the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

Find the best product for your specific use:
www.zimmer-group.com

**PRODUCT ADVANTAGES**

- **Lockable displacement position**
  Be flexible in your application, customise the handling to your workpiece and lock the displacement position with process reliability

- **Large locating flange**
  The large mounting surface simplifies your design and allows secure attachment of add-on components

- **Steel design**
  The highest force and torque measurement enables flexible for maximum dynamics

**THE BEST PRODUCT FOR YOUR APPLICATION**

- **Our products love the challenge!**
  Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:

  Find the best product for your specific use:
  www.zimmer-group.com
PRODUCT SPECIFICATIONS

Forces and moments

Shows static forces and torques which may impact on the ball joint

<table>
<thead>
<tr>
<th>Order no.</th>
<th>KG40</th>
<th>KG40ST</th>
<th>KG60</th>
<th>KG60ST</th>
<th>KG80</th>
<th>KG80ST</th>
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<tbody>
<tr>
<td>Swivel angle [°]</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Mx [Nm]</td>
<td>18</td>
<td>18</td>
<td>55</td>
<td>55</td>
<td>124</td>
<td>124</td>
</tr>
<tr>
<td>Fa [N]</td>
<td>7500</td>
<td>18000</td>
<td>15000</td>
<td>45000</td>
<td>28000</td>
<td>70000</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.1</td>
<td>0.3</td>
<td>0.3</td>
<td>0.9</td>
<td>0.8</td>
<td>2.3</td>
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</table>
SENSORS & HOLDERS
OVERVIEW OF SERIES
<table>
<thead>
<tr>
<th>Category</th>
<th>Series</th>
<th>Page</th>
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<tbody>
<tr>
<td>Magnetic Field Sensors</td>
<td>MFS</td>
<td>818</td>
</tr>
<tr>
<td></td>
<td>MFSP</td>
<td>819</td>
</tr>
<tr>
<td>Inductive Proximity Switches</td>
<td>NJ</td>
<td>820</td>
</tr>
<tr>
<td>Sensor Cables</td>
<td>KAW</td>
<td>822</td>
</tr>
<tr>
<td></td>
<td>KAG</td>
<td>822</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>823</td>
</tr>
<tr>
<td>Stop Stroke Adjustment Screws</td>
<td>AI</td>
<td>824</td>
</tr>
<tr>
<td></td>
<td>AO</td>
<td>824</td>
</tr>
<tr>
<td>Holders</td>
<td>KB</td>
<td>825</td>
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</tbody>
</table>
SERIES MFS - MAGNETIC FIELD SENSORS

For monitoring piston position on pneumatic cylinders
Non-contacting and wear-free for long service life

Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MFS103KHC</th>
<th>MFS103SKHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assured switching field strength [kA/m]</td>
<td>&lt;2</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Hysteresis of %</td>
<td>&lt;45</td>
<td>&lt;45</td>
</tr>
<tr>
<td>Supply voltage [V DC]</td>
<td>10...30</td>
<td>10...30</td>
</tr>
<tr>
<td>Voltage drop [V]</td>
<td>&lt;2</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Load current capacity [mA]</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Current consumption max. [mA]</td>
<td>&lt;8</td>
<td>&lt;8</td>
</tr>
<tr>
<td>Protected against polarity reversal</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Short-circuit-proof</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ambient temperature range [°C]</td>
<td>-25 ... +70</td>
<td>-25 ... +70</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67</td>
<td>IP67</td>
</tr>
<tr>
<td>Housing Material</td>
<td>LCP</td>
<td>LCP</td>
</tr>
<tr>
<td>Fixing types</td>
<td>Cable</td>
<td>Cable/Connector M8</td>
</tr>
<tr>
<td>Cable length [m]</td>
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<tr>
<td>Certification</td>
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<td>(\circ)</td>
</tr>
</tbody>
</table>

Get all needed parts in just one sensor-set!
The sets include all sensors, cables and plugs for trouble-free installation position sensing of a gripper with integrated magnetic field sensors.

Set 1: Order no.: MFS103S-01
consisting of:
- 2x Magnetic Field Sensors: MFS103SKHC
- 2x Plug-in Connector: KAG500
- 2x Plug-in Connector: SB-G-3

Set 2: Order no.: MFS103S-02
consisting of:
- 2x Magnetic Field Sensors: MFS103SKHC
- 1x Y-Plug-in Connector: SB-Y-4
- 1x Plug-in Connector: KAG500B4
- 1x Plug-in Connector: S12-G-4

SERIES MFS - MAGNETIC FIELD SENSORS

For monitoring piston position on pneumatic cylinders
Non-contacting and wear-free for long service life

Technical Data

<table>
<thead>
<tr>
<th>Order no.</th>
<th>MFS204KHC</th>
<th>MFS204SKHC</th>
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<tr>
<td>Assured switching field strength [kA/m]</td>
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<td>Hysteresis of %</td>
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<td>&lt;45</td>
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<td>Supply voltage [V DC]</td>
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<td>10...30</td>
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<tr>
<td>Voltage drop [V]</td>
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<tr>
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<td>Short-circuit-proof</td>
<td>Yes</td>
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<tr>
<td>Ambient temperature range [°C]</td>
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<td>-25 ... +70</td>
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Get all needed parts in just one sensor-set!
The sets include all sensors, cables and plugs for trouble-free installation position sensing of a gripper with integrated magnetic field sensors.

Set 3: Order no.: MFS204S-01
consisting of:
- 2x Magnetic Field Sensors: MFS204SKHC
- 2x Plug-in Connector: KAG500
- 2x Plug-in Connector: SB-G-3

Set 4: Order no.: MFS204S-02
consisting of:
- 2x Magnetic Field Sensors: MFS204SKHC
- 1x Y-Plug-in Connector: SB-Y-4
- 1x Plug-in Connector: KAG500B4
- 1x Plug-in Connector: S12-G-4
### SERIES MFSP - MAGNETIC FIELD SENSORS

- Two freely programmable switching points
- Straightforward teach-in procedure
- Reduced installation and wiring requirements

#### Technical Data

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**SERIES NJ - INDUCTIVE PROXIMITY SWITCHES**

- Contact-free, wear-free and short-circuit proof
- Available starting at 3 mm Ø

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<tr>
<th>Order no.</th>
<th>NJ3-E2</th>
<th>NJ3-E2SK</th>
<th>NJ4-E2</th>
<th>NJ4-E2SK</th>
<th>NJ5-E2</th>
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<td>0...0.6</td>
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<td>10...30</td>
<td>10...30</td>
<td>10...30</td>
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<th>NJ8-E2</th>
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<td>Yes</td>
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<td>Yes</td>
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<td>-25 ... +70</td>
<td>-25 ... +70</td>
<td>-25 ... +70</td>
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<td>0...1.6</td>
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<td>Short-circuit-proof</td>
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<td>Repetition accuracy [%]</td>
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</table>
**SERIES KAW - PLUG-IN CONNECTOR ANGLED WITH CABLE**

- Plug-in Connector angled with Cable
- with 3 and 4 poles, with M8 or M12 connection thread size
- Halogen, silicone and PVC free
- Suitable for drag chains (10xØ)

**Order no.**

<table>
<thead>
<tr>
<th>Fixing thread</th>
<th>KAW500</th>
<th>KAW500-12</th>
<th>KAW500S4</th>
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<table>
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**SERIES KAG - PLUG-IN CONNECTOR STRAIGHT WITH CABLE**

- Plug-in Connector angled with Cable
- with 3 and 4 poles, with M8 or M12 connection thread size
- Halogen, silicone and PVC free
- Suitable for drag chains (10xØ)

**Order no.**

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<th>Fixing thread</th>
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<th>KAG500S4</th>
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<td>Straight</td>
<td>Straight</td>
</tr>
<tr>
<td>Version [Type]</td>
<td>Straight</td>
<td>Straight</td>
<td>Straight</td>
<td>Straight</td>
<td>Straight</td>
</tr>
</tbody>
</table>
**SERIES S - PLUG-IN CONNECTOR CUSTOMIZABLE WITH SCREW-CUT-TERMINAL**

- Plug-in connector for flexible fabrication on-site
- Time-saving fabrication without stripping insulation from individual wires

<table>
<thead>
<tr>
<th>Order no.</th>
<th>S8-G-3</th>
<th>S8-G-4</th>
<th>B8-G-4</th>
<th>S12-G-3</th>
<th>S12-G-4</th>
<th>S12-G-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing types</td>
<td>Connector</td>
<td>Connector</td>
<td>Female</td>
<td>Connector</td>
<td>Connector</td>
<td>Connector</td>
</tr>
<tr>
<td>Fixing thread</td>
<td>M8</td>
<td>M8</td>
<td>M8</td>
<td>M12</td>
<td>M12</td>
<td>M12</td>
</tr>
<tr>
<td>No. of contacts</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67</td>
<td>IP67</td>
<td>IP67</td>
<td>IP67</td>
<td>IP67</td>
<td>IP67</td>
</tr>
<tr>
<td>Version [Type]</td>
<td>Straight</td>
<td>Straight</td>
<td>Straight</td>
<td>Straight</td>
<td>Straight</td>
<td>Straight</td>
</tr>
</tbody>
</table>

**SERIES S - PLUG-IN CONNECTOR CUSTOMIZABLE WITH SOLDER CONNECTION**

- Plug-in connector for flexible fabrication on-site

<table>
<thead>
<tr>
<th>Order no.</th>
<th>S8-W-3</th>
<th>S8-W-4</th>
<th>S12-W-8</th>
<th>B8-W-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing types</td>
<td>Connector</td>
<td>Connector</td>
<td>Connector</td>
<td>Female</td>
</tr>
<tr>
<td>Fixing thread</td>
<td>M8</td>
<td>M8</td>
<td>M12</td>
<td>M8</td>
</tr>
<tr>
<td>No. of contacts</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67</td>
<td>IP67</td>
<td>IP67</td>
<td>IP67</td>
</tr>
<tr>
<td>Version [Type]</td>
<td>Angle</td>
<td>Angle</td>
<td>Angle</td>
<td>Angle</td>
</tr>
</tbody>
</table>

**SERIES S - Y-PLUG-IN CONNECTOR**

<table>
<thead>
<tr>
<th>Order no.</th>
<th>B8-Y-4</th>
<th>S8-Y-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing types</td>
<td>Plug / socket / plug</td>
<td>Socket / plug / socket</td>
</tr>
<tr>
<td>Fixing thread</td>
<td>M8</td>
<td>M8</td>
</tr>
<tr>
<td>No. of contacts</td>
<td>3 / 4 / 3</td>
<td>3 / 4 / 3</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP67</td>
<td>IP67</td>
</tr>
<tr>
<td>Version [Type]</td>
<td>Y-Plug-in Connector</td>
<td>Y-Plug-in Connector</td>
</tr>
</tbody>
</table>
SENSORS AND HOLDERS
STOP STROKE ADJUSTMENT SCREWS

► SERIES AI - STOP STROKE ADJUSTMENT SCREWS

Stop stroke adjustment screw for M12 sensor mount
Stop stroke adjustment screw with customizable sensor mount

<table>
<thead>
<tr>
<th>Order no.</th>
<th>AI-M8X1-38</th>
<th>AI-M8X1-53</th>
<th>AI-M10X1-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing thread</td>
<td>M8X1</td>
<td>M8X1</td>
<td>M10X1</td>
</tr>
<tr>
<td>to match for Sensors-Ø [mm]</td>
<td>M12X1</td>
<td>M12X1</td>
<td>M12X1</td>
</tr>
</tbody>
</table>

► SERIES AO - STOP STROKE ADJUSTMENT SCREWS

Stop stroke adjustment screw with customizable sensor mount

<table>
<thead>
<tr>
<th>Order no.</th>
<th>AO-M8X1-38</th>
<th>AO-M8X1-53</th>
<th>AO-M10X1-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing thread</td>
<td>M8X1</td>
<td>M8X1</td>
<td>M10X1</td>
</tr>
<tr>
<td>to match for Sensors-Ø [mm]</td>
<td>customizable</td>
<td>customizable</td>
<td>customizable</td>
</tr>
</tbody>
</table>
**SENSORS & HOLDERS**

**HOLDERS**

**SERIES KB - MOUNTING BLOCK**

- Mounting for inductive proximity switch
- Available starting at Ø 3 mm

<table>
<thead>
<tr>
<th>Order no.</th>
<th>KB3</th>
<th>KB3M</th>
<th>KB4</th>
<th>KB5</th>
<th>KB6.5</th>
<th>KB8</th>
<th>KB12</th>
</tr>
</thead>
<tbody>
<tr>
<td>to match for Sensors-Ø [mm]</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6.5</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

**Technical Data**

*SENSORS & HOLDERS*

Data, Drawings, 3-D Models, Operating Instructions  ◄ www.zimmer-group.com
Valves, Fittings, Accessories

Overview of Series
## FITTINGS
- Series GV 828
- Series WV 829

## VALVES
- Series DRV 830
- Series DSV 831
- Series DEV 831

## JAW ACCESSORIES
- Series DG 832
- Series GR 832
- Series J 832
- Series GU 833
- Series KF 834
- Series BGM 834
- Series BN 834
- Series GU800 835

## JAW EXTENSIONS
- Series GBV 836

## ROTARY DISTRIBUTORS
- Series DV 838

## BUSBOX
- See Page 839
SERIES GV - STRAIGHT FITTINGS - BARB-STYLE CONNECTION

- For assembling with hose clips
- Straight version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>GV1-4X5ID</td>
<td>GV1-8X5ID</td>
</tr>
<tr>
<td>Fixing thread</td>
<td>M3</td>
</tr>
<tr>
<td>Inside-Ø for hose [mm]</td>
<td>5</td>
</tr>
<tr>
<td>Length [mm]</td>
<td>9.9</td>
</tr>
</tbody>
</table>

SERIES GV - STRAIGHT FITTINGS - QUICK CONNECT STYLE

- Cost reduction through quick assembly and disassembly
- Straight version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>GV1-4X10ID</td>
<td>GV1-8X13ID</td>
</tr>
<tr>
<td>Fixing thread</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>Inside-Ø for hose [mm]</td>
<td>10</td>
</tr>
<tr>
<td>Length [mm]</td>
<td>32.5</td>
</tr>
</tbody>
</table>

www.zimmer-group.com
SERIES WV - ANGLED FITTING, BARB STYLE CONNECTION

- For assembling with hose clips
- Angled version

Order no. | WVM3
---|---
Fixing thread | M3
Inside-Ø for hose [mm] | 3

WV SERIES - ANGLED FITTINGS- QUICK CONNECT STYLE

- Cost reduction through quick assembly and disassembly
- Angled and swivel-mounted

<table>
<thead>
<tr>
<th>Order no.</th>
<th>WV5</th>
<th>WV1-8X4</th>
<th>WV1-8X6</th>
<th>WV1-8X8</th>
<th>WV1-4X6</th>
<th>WV1-4X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing thread</td>
<td>M5</td>
<td>1/8&quot;</td>
<td>1/8&quot;</td>
<td>1/8&quot;</td>
<td>1/4&quot;</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>Outside-Ø for hose [mm]</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>
SERIES DRV - FLOW CONTROL VALVES - WITH SWIVEL JOINT

- Configurable flow control valves for regulating the exhaust air
- Optimal for regulating the speeds during piston movements
- Angled version

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DRV1-4X4</th>
<th>DRV1-8X6</th>
<th>DRV1-8X8</th>
<th>DRV1-4X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing thread</td>
<td>M5</td>
<td>1/8&quot;</td>
<td>1/8&quot;</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>Outside-Ø for hose [mm]</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Length [mm]</td>
<td>25.5</td>
<td>35</td>
<td>35</td>
<td>38.5</td>
</tr>
<tr>
<td>Operating pressure [bar]</td>
<td>0.2 / 10</td>
<td>0.2 / 10</td>
<td>0.2 / 10</td>
<td>0.2 / 10</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
</tbody>
</table>

DRV SERIES - FLOW CONTROL VALVES - INLINE

- Configurable flow control valves for regulating the exhaust air
- Optimal for regulating the speeds during piston movements

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DRV1-4I</th>
<th>DRV1-8I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing thread</td>
<td>1/4&quot;</td>
<td>1/8&quot;</td>
</tr>
<tr>
<td>Length [mm]</td>
<td>58</td>
<td>48</td>
</tr>
<tr>
<td>Operating pressure [bar]</td>
<td>0.2 / 10</td>
<td>0.2 / 10</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>5 ... 80</td>
<td>5 ... 80</td>
</tr>
</tbody>
</table>
SERIES DSV - PRESSURE SAFETY VALVE

- For maintaining the position of a double-acting cylinder if the operating pressure drops
- The valve consists of 2 check valves that are unlocked pneumatically

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>DSV1-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal diameter [mm]</td>
<td>4</td>
</tr>
<tr>
<td>Operating pressure [bar]</td>
<td>0.5 / 10</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>0 ... +80</td>
</tr>
</tbody>
</table>

SERIES DEV - QUICK EXHAUST VALVE

- For higher piston speeds for cylinders
- To bring about quick-action ventilation, the valve must be installed as close to the cylinder's air connection as possible

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>DEV04</th>
<th>DEV06</th>
<th>DEV08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside-Ø for hose [mm]</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>-5 ... +50</td>
<td>-5 ... +50</td>
<td>-5 ... +50</td>
</tr>
</tbody>
</table>
SERIES DG - RUBBER JAW PADS

Available in different versions
A packaging unit includes 6 pcs.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>DG6</th>
<th>DG6SI</th>
<th>DG10</th>
<th>DG10SI</th>
<th>DG16</th>
<th>DG16SI</th>
<th>DG20</th>
<th>DG20SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A [mm]</td>
<td>6</td>
<td>6</td>
<td>10</td>
<td>10</td>
<td>16</td>
<td>16</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>B [mm]</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Material</td>
<td>Neoprene</td>
<td>Silicone</td>
<td>Neoprene</td>
<td>Silicone</td>
<td>Neoprene</td>
<td>Silicone</td>
<td>Neoprene</td>
<td>Silicone</td>
</tr>
</tbody>
</table>

SERIES GR - HARD JAW INSERTS

Available in different versions

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GR4</th>
<th>GR4A</th>
<th>GR4C</th>
<th>GR5</th>
<th>GR6</th>
</tr>
</thead>
<tbody>
<tr>
<td>A [mm]</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>15.8</td>
<td>19</td>
</tr>
<tr>
<td>B [mm]</td>
<td>9.5</td>
<td>12.7</td>
<td>16.5</td>
<td>9.5</td>
<td>9.5</td>
</tr>
<tr>
<td>C [mm]</td>
<td>9.5</td>
<td>9.5</td>
<td>9.5</td>
<td>12.7</td>
<td>15.8</td>
</tr>
<tr>
<td>D [mm]</td>
<td>8.7</td>
<td>11.9</td>
<td>15.8</td>
<td>8.7</td>
<td>8.7</td>
</tr>
</tbody>
</table>

SERIES J - HARD JAW INSERTS, FLOATING

Available in different versions

<table>
<thead>
<tr>
<th>Order no.</th>
<th>J712</th>
<th>J718</th>
<th>J728</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø - d1</td>
<td>12n6</td>
<td>18n6</td>
<td>28n6</td>
</tr>
<tr>
<td>Ø - d2 [mm]</td>
<td>M3</td>
<td>M4</td>
<td>M5</td>
</tr>
<tr>
<td>Ø - d3 [mm]</td>
<td>7</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>L1 [mm]</td>
<td>10</td>
<td>16</td>
<td>25</td>
</tr>
</tbody>
</table>
### SERIES GU - RUBBER JAW LINERS

#### GU1: Basic jaw with infeed knobs
- Receiver holes for infeed knobs - 4.5 mm

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GU1</th>
<th>GU1SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance DIN53504 min. [N/mm²]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Material</td>
<td>Neoprene</td>
<td>Silicone</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
<td>Blue</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>120</td>
<td>200</td>
</tr>
<tr>
<td>Shore hardness</td>
<td>65 +/- 3</td>
<td>60 +/- 5</td>
</tr>
</tbody>
</table>

#### Technical Data

- Available in different versions
- Rubber jaw with baseplate made of aluminum

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GU2</th>
<th>GU2SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance DIN53504 min. [N/mm²]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Material</td>
<td>Neoprene</td>
<td>Silicone</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
<td>Blue</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>120</td>
<td>200</td>
</tr>
<tr>
<td>Shore hardness</td>
<td>65 +/- 3</td>
<td>60 +/- 5</td>
</tr>
</tbody>
</table>

#### Technical Data

- Available in different versions
- Rubber jaw with baseplate made of aluminum

<table>
<thead>
<tr>
<th>Order no.</th>
<th>GU2G</th>
<th>GU2GSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance DIN53504 min. [N/mm²]</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Material</td>
<td>Neoprene</td>
<td>Silicone</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
<td>Blue</td>
</tr>
<tr>
<td>Operating temperature max. [°C]</td>
<td>120</td>
<td>200</td>
</tr>
<tr>
<td>Shore hardness</td>
<td>65 +/- 3</td>
<td>60 +/- 5</td>
</tr>
</tbody>
</table>
SERIES KF - RUBBER COATED TAPE

- Smooth surface or knobbled surface adjusts itself optimally to the shape of the gripper jaw.
- Ideal coefficients of friction and compensates for variation in tolerances.
- Resistant against adhesive materials.

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>KF50G</td>
<td>KF50N</td>
</tr>
<tr>
<td>Size [mm]</td>
<td>500 x 100</td>
</tr>
<tr>
<td>Material</td>
<td>Impregnated cotton fabric with special coating</td>
</tr>
<tr>
<td>Surface</td>
<td>Smooth</td>
</tr>
<tr>
<td>Material thickness [mm]</td>
<td>0.48</td>
</tr>
<tr>
<td>Max. permitted temperature range [°C]</td>
<td>+60 (briefly up to +100 °C)</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>0.9</td>
</tr>
<tr>
<td>Adhesive strength</td>
<td>22</td>
</tr>
</tbody>
</table>

SERIES BGM - EPOXY JAW COMPOUND

- For your individual gripper jaws in a few steps.
- Hard as metal and can be used for the most sensitive parts due to silicone filling.
- Sufficient for approximately 10 medium-sized jaw cups.

SERIES BN - JAW CUPS FOR EPOXY JAW COMPOUND

- Jaw Cups for Epoxy Jaw Compound (BGM)

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>BN8</td>
<td>BN12</td>
</tr>
<tr>
<td>A [mm]</td>
<td>8</td>
</tr>
<tr>
<td>B [mm]</td>
<td>4</td>
</tr>
<tr>
<td>C1</td>
<td>M3</td>
</tr>
<tr>
<td>Ø-D [mm]</td>
<td>6</td>
</tr>
<tr>
<td>Ø-E [mm]</td>
<td>5</td>
</tr>
</tbody>
</table>
SERIES GU800 - RUBBER MOULDING COMPOUND

For complicated gripper fingers with boreholes, seals and roller coatings

Repairs to conveyor belts, solid rubber tires, transport casters, pipes, vibration protection on machines and insulation protection

Order no. GU800

| Mix ratio  | 100:50 |
| Shore hardness level after hardening (ISO 888) | 80 |
| Sealed | 1.04 |
| Tensile strength (ISO 37) [N/mm²] | 8.5 |
| Elongation at break (ISO 37) | 900 |
| Tear resistance (CIN 53356) | 17 |
| Permitted temperature range [°C] | -60 ... +90 |

Technical Data
GBV guide elements can be positioned at any desired distance from the gripper, including different distances.

Connection to gripper is made via threaded rods.
SERIE DV - ROTARY DISTRIBUTOR

available with 2 or 4 pneumatic feedthroughs

<table>
<thead>
<tr>
<th>Order no.</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air feed-through [Quantity]</td>
<td>2</td>
</tr>
<tr>
<td>Maximum acceleration [m/s²]</td>
<td>22</td>
</tr>
<tr>
<td>Maximum speed [°/s]</td>
<td>720</td>
</tr>
<tr>
<td>Axial bearing load [N]</td>
<td>1300</td>
</tr>
<tr>
<td>Radial bearing load [Nm]</td>
<td>104</td>
</tr>
<tr>
<td>Operating pressure max. [bar]</td>
<td>5...80</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>0.45</td>
</tr>
</tbody>
</table>

DV2N-B

1. Rotary distributor attachment
2. Pneumatic feed-through

DV4N-B

3. Rotary distributor attachment
4. Pneumatic feed-through
SERIES ZUBBOX9000-01

- Control via Profibus
- 4 actuators of the series GEP, GEN and VEE can be connected
- Intelligent Power Supply - IPC
- Power storage via condensers

**Order no.**

<table>
<thead>
<tr>
<th>Fieldbus type</th>
<th>Profibus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuator connectors max.</td>
<td>4</td>
</tr>
<tr>
<td>Signal voltage [V DC]</td>
<td>24</td>
</tr>
<tr>
<td>Load voltage [V DC]</td>
<td>24</td>
</tr>
<tr>
<td>Current feed min. [A]</td>
<td>5</td>
</tr>
<tr>
<td>Current feed max. [A]</td>
<td>10</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>0...+50</td>
</tr>
<tr>
<td>Protection to IEC 60529</td>
<td>IP64</td>
</tr>
<tr>
<td>Certification</td>
<td>CE</td>
</tr>
<tr>
<td>Weight [kg]</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Technical Data**

![Diagram of BUSBOX9000-01](image)
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STANDARDS

DECLARATION OF INCORPORATION IN TERMS OF THE EC DIRECTIVE 2006/42/EC ON MACHINERY (ANNEX II 1 B)

We hereby declare that our elements meet the following basic requirements of the Machinery Directive 2006/42/EC as an incomplete machine

No.1.1.2., No.1.1.3., No.1.1.5., No.1.3.2, No. 1.3.4, No. 1.3.7, No.1.5.3, No.1.5.4, No.1.5.8., No.1.6.4, No.1.7.1, No.1.7.3, No.1.7.4.

We also declare that the specific technical documents were produced in accordance with Annex VII Part B of this Directive. We undertake to provide the market supervisory bodies with electronic versions of the incomplete machine’s special documents via our documentation department should they have reason to request them.

The incomplete machine may only be commissioned if the machine or system in which the incomplete machine is to be installed has been determined to satisfy the conditions of the Machinery Directive 2006/42/EC and the EC Declaration of Conformity has been produced in accordance with Annex II A.
# CHECKLIST GRIPPER

<table>
<thead>
<tr>
<th>Customer number</th>
<th>Telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>Fax number</td>
</tr>
<tr>
<td>Contact</td>
<td>E-Mail</td>
</tr>
</tbody>
</table>

- Request [ ] Desired date [ ] Req. No. [ ]
- Order [ ]
- Parallel gripper [ ] Three-jaw gripper [ ] Angular gripper [ ]
- Other / If yes, which type [ ]

## Drive
- Pneumatic [ ]
- Electric [ ]
- Hydraulic [ ]

**Operating pressure** [ ] bar
**Voltage** [ ] Volts

## Required stroke
**Per jaw** [ ] mm or **Total stroke** [ ] mm

## Gripper finger length
**Gripper top edge to force application point** [ ] mm

## Ambient conditions
- Clean / Dry [ ]
- Small amount of swarf / Coolant overspray [ ]
- Large amount of swarf / Coolant under pressure of grinding agents [ ]
- Chemical substances / If yes, which [ ]

**Temperature** [ ] °C
**Cycles** [ ] per minute

## Required force
- Gripping force [ ] N or **Workpiece weight** [ ] kg [ ] g

## Gripping type
- Gripping inward [ ]
- Gripping outward [ ]
- Frictional fit [ ]
- Form fit [ ]

**Prism angle** [ ] °
**Coefficient of friction** [ ]
**Axis acceleration** [ ] m/s²

## Self Locking
- Not required [ ]
- When closing [ ]
- When opening [ ]
- Pressure safety valve [ ]

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Desired accessories

- Inductive sensor
- Magnetic field sensor
- With cable
- Pluggable

Separate cable / If yes, how long: [X] m

- Straight fitting
- Angled fitting

Pressure safety valve

Pneumatic fittings / If yes, which:

- Straight
- Angled
- Flow control valve

Notes/comments

Editor/Date

Desired accessories

- Sketch
- 3D model
- Other

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